

1 Israel David*
2 Blake Hunter Yagman*
3 **ISRAEL DAVID LLC**
4 17 State Street, Suite 4010
5 New York, New York 10004
6 Tel.: 212-739-0622
7 Email: *israel.david@davidllc.com*
8 *blake.yagman@davidllc.com*

9 **Pro Hac Vice Forthcoming*

10 Mario A. Moya (SBN 262069)
11 Rebecca M. Hoberg (SBN 224086)
12 **MOYA LAW FIRM**
13 1300 Clay St., Suite 600
14 Oakland, CA 94612
15 Email: *mmoya@moyalawfirm.com*
16 *rhoberg@moyalawfirm.com*

17 *Attorneys for Plaintiff Schermer and the Proposed Class*

18 **UNITED STATES DISTRICT COURT**
19 **NORTHERN DISTRICT OF CALIFORNIA**

20 JARED SCHERMER, on behalf of himself and
21 all others similarly situated,

22 *Plaintiff,*

23 v.

24 APPLE INC.,

25 *Defendant.*

26 Case No. _____

27 **CLASS ACTION COMPLAINT**

28 **JURY TRIAL DEMANDED**

1 Plaintiff Jared Schermer (the “Plaintiff”), on behalf of himself and all others similarly
2 situated, alleges the following against the above-captioned Defendant, Apple Inc. (“Defendant” or
3 “Apple”) upon personal knowledge as to himself and his own actions, and upon information and
4 belief, including the investigation of counsel, as follows:

5
6 **I. NATURE OF THE ACTION**

7 1. “Consumers should not have to pay higher prices because companies break the
8 law.”

9 2. This would seem axiomatic and unnecessary to say in 2024. Yet, United States
10 Attorney General Merrick Garland felt compelled to say this in his March 21, 2024 remarks
11 announcing a landmark lawsuit against Apple commenced that day by the United States
12 Department of Justice, seeking to remedy a sprawling web of antitrust violations by Apple.

13 3. Apple was founded in 1976 to make and market personal computers.

14 4. Apple’s business took a turn at the time it launched the iPod in 2001.

15 5. The confluence of several factors made Apple a success. Apple’s iTunes
16 application allowed iPod users to organize their song libraries. A groundbreaking antitrust
17 enforcement case brought by the United States against Microsoft opened the market and
18 constrained Microsoft’s ability to prohibit companies like Apple from offering iTunes on Windows
19 PCs. Licensing agreements with major music labels allowed Apple to offer iPod/iTunes users a
20 wide selection of music for a fee-per-download. The iPod experience gave Apple a recipe for the
21 future: a high-end device, a large number of platform participants (*i.e.*, music labels and
22 consumers), and a digital storefront. More importantly, it gave Apple a playbook: drive as many
23 consumers and third-party participants to the platform as possible and offer to consumers a wide
24 selection of content, products, and services created by those third parties.

25 6. This structure put Apple in position to generate substantial revenues through device
26 sales in the first instance and subsequently the ancillary fees that it derives from sitting between
27 consumers and the products and services they want.

1 7. Apple’s experience with the iPod set the stage for Apple’s most successful product
2 to date. In 2007, Apple launched the iPhone, a smartphone that offered high-design coupled with
3 high-end hardware and software applications, called “apps,” built atop a mobile operating system
4 that mimicked the functionality and ease of use of a computer. Apple initially offered only a small
5 number of apps that it had created for the iPhone. Apple quickly realized the enormous value that
6 a broader community of entrepreneurial, innovative developers could drive to its users and the
7 iPhone platform more broadly. Thus, Apple invited and capitalized on the work of these third
8 parties while maintaining control and monetizing that work for itself. The value of third parties’
9 work served an important purpose for Apple. As early as 2010, then-CEO Steve Jobs discussed
10 how to “further lock customers into our ecosystem” and “make Apple[’s] ecosystem even more
11 sticky.” Three years later, Apple executives were still strategizing how to “get people hooked to
12 the ecosystem.”

13 8. That strategy paid off. Over more than 15 years, Apple has built and sustained the
14 most dominant smartphone platform and ecosystem in the United States by attracting third-party
15 developers of all stripes to create apps that users could download on their smartphones through a
16 digital storefront known as the App Store. As developers created more and better products,
17 content, apps, and services, more people bought iPhones, which incentivized even more third
18 parties to develop apps for the iPhone. Today, the iPhone’s ecosystem includes products, apps,
19 content, accessories, and services that are offered by content creators, newspaper publishers,
20 banks, advertisers, social media companies, airlines, productivity developers, retailers and other
21 merchants, and other entities offer to Apple users. As Apple’s power grew, its leverage over third
22 parties reinforced its tight control over how third parties innovate and monetize on and off the
23 smartphone in ways that were anticompetitive and exclusionary.

24 9. Today, Apple charges as much as \$1,599 for an iPhone and earns high margins on
25 each one, more than double the margins earned by others in the industry. When developers create
26 a new product or service for iPhone consumers, Apple demands up to 30 percent of the price of an
27 app whose content, product, or service it did not create. Then, when a consumer wants to buy
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1 additional services within that app, Apple extracts up to another 30 percent, again for a service
2 Apple does not create or develop. When customers purchase a meal or pay for groceries, Apple
3 charges a fee for every “tap-to-pay” transaction, imposing its own form of an interchange fee on
4 banks and a significant new cost for using credit cards. When users run an internet search, Google
5 gives Apple a significant cut of the advertising revenue that an iPhone user’s searches generate.

6 10. Apple well recognizes that while a community of developers and accessory makers
7 is indispensable to the success of the iPhone, they also pose an existential threat to its extraordinary
8 profits by empowering consumers to choose perfectly functional, less-expensive alternative
9 smartphones.

10 11. Apple’s smartphone business model, at its core, is one that invites as many
11 participants, including iPhone users and third-party developers, to join its platform as possible
12 while using contractual terms to force these participants to pay substantial fees. At the same time,
13 Apple restricts its platform participants’ ability to negotiate fees through alternative app stores, in-
14 app payment processors, and more.

15 12. To protect that model, Apple reduces competition in the markets for performance
16 smartphones and smartphones generally. It does this by delaying, degrading, or outright blocking
17 technologies that would increase competition in the smartphone markets by decreasing barriers to
18 switching to another smartphone, among other things. The suppressed technologies would provide
19 a high-quality user experience on any smartphone, which would, in turn, require smartphones to
20 compete on their merits.

21 13. Apple suppresses such innovation through a web of contractual restrictions that it
22 selectively enforces through its control of app distribution and its “app review” process, as well as
23 deny access to key points of connection between apps and the iPhone’s operating system (called
24 Application Programming Interfaces or “APIs”). Apple can enforce these restrictions due to its
25 position as an intermediary between product creators such as developers on the one hand and users
26 on the other.

1 14. This complaint highlights five out of many examples of Apple using these
2 mechanisms to suppress technologies that would have increased competition among smartphones.
3 Suppressing these technologies does not reflect competition on the merits. Rather, to protect its
4 smartphone monopoly — and the extraordinary profits this monopoly generates — Apple
5 repeatedly chooses to make its products worse for consumers to prevent competition from
6 emerging. The examples below individually and collectively have contributed to Apple’s ability
7 to secure, grow, and maintain its smartphone monopoly by increasing switching costs for users,
8 which leads to higher prices and less innovation for users and developers. Apple has used one or
9 both mechanisms (control of app distribution or control of APIs) to suppress the following
10 technologies, among others:

11 15. **Super Apps.** Super apps provide a user with broad functionality in a single app.
12 Super apps can improve smartphone competition by providing a consistent user experience that
13 can be ported across devices. Suppressing super apps harms all smartphone users— including
14 Apple users—by denying them access to high quality experiences and it harms developers by
15 preventing them from innovating and selling products.

16 16. **Cloud Streaming.** Cloud streaming game apps provide users with a way to play
17 computing intensive games in the cloud. Cloud streaming games (and cloud streaming in general)
18 can improve smartphone competition by decreasing the importance of expensive hardware for
19 accomplishing high-compute tasks on a smartphone. Suppressing cloud streaming games harms
20 users by denying them the ability to play high-compute games, and it harms developers by
21 preventing them from selling such games to users.

22 17. **Messaging.** Messaging apps are apps that allow users to communicate with friends,
23 family, and other contacts. Messaging apps that work equally well across all smartphones can
24 improve competition among smartphones by allowing users to switch phones without changing the
25 way they communicate with friends, family, and others. Apple makes third-party messaging apps
26 on the iPhone perform poorly generally and relative to Apple Messages, Apple’s own messaging
27 app, by prohibiting third-party apps from sending or receiving carrier-based messages. By doing
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1 so, Apple is knowingly and deliberately degrading quality, privacy, and security for its users and
2 others who do not have iPhones. Apple also harms developers by artificially constraining the size
3 of their user base.

4 18. **Smartwatches.** Smartwatches are an expensive accessory that typically must be
5 paired to a smartphone. Smartwatches that can be paired with different smartphones allow users
6 to retain their investment in a smartwatch when switching phones thereby decreasing the literal
7 cost associated with switching from one smartphone to another, among other things. By
8 suppressing key functions of third-party smartwatches — including the ability to respond to
9 notifications and messages and to maintain consistent connections with the iPhone — Apple has
10 denied users access to high performing smartwatches with preferred styling, better user interfaces
11 and services, or better batteries, and it has harmed smartwatch developers by decreasing their
12 ability to innovate and sell products.

13 19. **Digital Wallets.** Digital wallets are an increasingly important function for
14 smartphones and are a product in which users develop a great deal of comfort and trust as they
15 typically contain users' most sensitive financial information. Digital wallets that work across
16 smartphone platforms allow users to move from one smartphone brand to another with decreased
17 frictions, among other things. Apple has denied users access to digital wallets that would have
18 provided a wide variety of enhanced features and denied digital wallet developers the opportunity
19 to provide advanced digital payments services to their own customers.

20 20. By maintaining its monopoly over smartphones, Apple harms consumers in a wide
21 variety of additional ways. For example, by denying iPhone users the ability to choose their trusted
22 banking apps as their digital wallet, Apple retains full control both over the consumer and also
23 over the stream of income generated by forcing users to use only Apple-authorized products in the
24 digital wallet. Apple also prohibits the creation and use of alternative app stores curated to reflect
25 a consumer's preferences with respect to security, privacy, or other values. These and many other
26 features would be beneficial to consumers and empower them to make choices about what
27

1 smartphone to buy and what apps and products to patronize. But allowing consumers to make that
2 choice is an obstacle to Apple's ability to maintain its monopoly.

3 21. While Apple's anticompetitive might have benefited its shareholders, it comes at a
4 great cost to consumers. Some of those costs are immediate and obvious, and they directly affect
5 Apple's own customers. Apple inflates the price for buying and using iPhones while preventing
6 the development of features like alternative app stores, innovative super apps, cloud-streaming
7 games, and secure texting.

8 22. Other costs of Apple's anticompetitive conduct may be less obvious in the
9 immediate term. But they are no less harmful and even more widespread, affecting all smartphone
10 consumers. Apple's smartphone monopoly means that it is not economically viable to invest in
11 building some apps, like digital wallets, because they cannot reach iPhone users. This means that
12 innovations fueled by an interest in building the best, most user-focused product in a more
13 competitive market never get off the ground. What's more, Apple itself has less incentive to
14 innovate because it has insulated itself from competition.

15 23. Apple has demonstrated its ability to use its smartphone monopoly to impose fee
16 structures and manipulate app reviews to inhibit aggrieved parties from taking advantage of
17 regulatory and judicial solutions imposed on Apple that attempt to narrowly remedy harm from
18 Apple's conduct.

19 24. Apple wraps itself in a cloak of privacy, security, and consumer preferences to
20 justify its anticompetitive conduct. It spends billions on marketing and branding to promote the
21 self-serving premise that only Apple can safeguard consumers' privacy and security interests.
22 Apple selectively compromises privacy and security interests when doing so is in Apple's own
23 financial interest — such as degrading the security of text messages, offering governments and
24 certain companies the chance to access more private and secure versions of app stores, or accepting
25 billions of dollars each year for choosing Google as its default search engine when more private
26 options are available. In the end, Apple deploys privacy and security justifications as an elastic
27 shield that can stretch or contract to serve Apple's financial and business interests.

1 25. Under the antitrust laws, consumers, competition, and the competitive process —
2 not Apple alone — should decide what options consumers should have. Competition, not Apple’s
3 self-interested business strategies, should be the catalyst for innovation essential to our daily lives,
4 not only in the smartphone market but in closely related industries like personal entertainment,
5 automotive infotainment, and even more innovations that have not yet been imagined.
6 Competition is what will ensure that Apple’s conduct and business decisions do not thwart the next
7 Apple.

8 26. Against this backdrop, Plaintiff brings this lawsuit, on behalf of himself and all
9 other similarly situated purchasers of iPhones indirectly from Apple, under Section 2 of the
10 Sherman Act to challenge Apple’s maintenance of its monopoly over smartphone markets which
11 affect at least many tens of millions of Americans every day.

12 **II. JURISDICTION, VENUE, and INTRADISTRICT ASSIGNMENT**

13 27. This Court has subject matter jurisdiction over this case pursuant to 28 U.S.C. §
14 1331 as well as Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26.

15 28. This Court has personal jurisdiction over the Defendant because Defendant resides
16 in this District, Defendant transacts business in this District, Defendant caused injury in this
17 District through its anticompetitive conduct.

18 29. Venue is proper in this District pursuant to the Clayton Act because Defendant
19 resides in this District, Defendant is licensed to do business in this District, and a substantial
20 portion of the affected interstate commerce described herein was carried out in this District.

21 30. Pursuant to Civil Local Rule 3-2(c) and General Order No. 44(D)(3), this antitrust
22 class action shall not be assigned to a particular Division in this District, but shall be assigned on
23 a District-wide basis.

1 **III. PARTIES**

2 ***Plaintiff Schermer***

3 31. Plaintiff Schermer is a New York resident.

4 32. Plaintiff indirectly purchased an Apple iPhone from Apple during the relevant time
5 period.

6 33. As a result of Apple’s anticompetitive conduct, Plaintiff and Class members are
7 harmed because: (1) they are forced to pay higher prices for iPhones and would have paid a lower
8 price (or would not have purchased an iPhone) had they known that Apple’s anticompetitive
9 conduct drives up the price of that iPhone; (2) they suffer from loss of innovation and other
10 efficiencies provided by other competitors in the market for smartphones in the United States; (3)
11 their freedom of choice in the market for smartphones is curtailed due to Apple’s conduct; and (4)
12 they has no choice but to provide their valuable transaction data to Apple (for no compensation) if
13 they wished to use their Apple iOS devices.

14 ***Defendant Apple***

15 34. Defendant Apple Inc. is a California corporation with its principal place of business
16 in Cupertino, California. Apple designs, markets, and sells Apple iOS devices, including the
17 iPhone.

18 **IV. FACTUAL ALLEGATIONS**

19 ***The Smartphone Industry***

20 35. Mobile phones are portable devices that enable communications over radio
21 frequencies instead of telephone landlines. These signals are transmitted by equipment covering
22 distinct geographic areas, or “cells,” which is why mobile phones were called cell phones. The
23 first commercial cell phones became available in the 1980s. Since then, improvements in both cell
24 phone components and wireless technology have made it possible to transfer large volumes of data
25 around the globe in a short period. As a result, mobile phones began to offer a wider array of
26 features and the adoption of mobile phones dramatically increased. Today, nearly all American
27 adults own a mobile phone.

1 36. Smartphones combine the functionality of a traditional mobile phone with
2 advanced hardware and software components. Smartphones not only make phone calls, but allow
3 users to listen to music, send text messages, take pictures, play games, access software for work,
4 manage their finances, and browse the internet. Consumers choose between smartphones based,
5 in part, on their functionality. Today, smartphone functionality is driven in large part by a
6 combination of hardware and software components. Thus, in a competitive market, smartphone
7 manufacturers would compete and innovate to provide the best functionality.

8 37. Although consumers could replace some smartphone functionality with separate
9 devices such as by always carrying a camera and laptop, they generally prefer to access this
10 combination of functionality through a single device. Thus, phones with some but not all of these
11 features are not reasonable substitutes for smartphones. For example, a Canon or Nikon camera
12 is not a substitute for an Apple or Samsung smartphone notwithstanding that both of these products
13 are capable of taking digital pictures.

14 38. **Smartphone Hardware.** A smartphone's hardware includes the frame and screen.
15 Higher performing smartphones are typically constructed from better materials like glass and metal
16 instead of plastic, manufactured to higher standards that make them more durable (*e.g.*, water and
17 dust proof), and have higher quality displays.

18 39. A smartphone's hardware also includes the semiconductor chipsets that run the
19 smartphone: central processing of software instructions, graphics, video, display, memory, data
20 storage, and connection to wireless networks. Chipsets that offer superior performance—faster
21 processing and network connections, better graphics, more storage—are costly. As a result,
22 smartphone manufacturers typically include them only in more expensive performance
23 smartphones.

24 40. Smartphone hardware includes other important components like cameras, and
25 position and motion sensors. Performance smartphones typically have higher quality cameras,
26 better battery life, wireless charging, and advanced biometrics such as face scanning.

1 41. Smartphones also contain several types of antennas that allow the phone to
2 communicate with other smartphones, accessories, or other devices using standard communication
3 protocols such as Wi-Fi, Bluetooth, and Near-Field Communications (NFC).

4 42. Three device manufacturers, Apple, Samsung, and Google, account for
5 approximately 94 percent of all smartphones by revenue in the United States. Apple and Samsung
6 alone account for approximately 90 percent of all smartphone revenues in the United States.

7 43. Cloud-based technologies are run using hardware and software in remote
8 computing centers (“the cloud”) rather than by hardware and software on a smartphone. The user
9 experiences the technology on the phone but the complex computing that generates the rich
10 experience and that executes the user’s commands happens in the cloud. Thus, cloud apps can
11 deliver rich experiences on smartphones with less capable hardware than iPhones currently
12 contain.

13 44. **Smartphone Operating Systems, Applications and Other Software.** In addition
14 to hardware, smartphones include various software components that make a smartphone more
15 attractive to users.

16 45. The most important software component is a smartphone’s operating system, the
17 foundational software that manages both the hardware and other software programs on the device.
18 All iPhones are preloaded with Apple’s proprietary, exclusive iPhone operating system called iOS.
19 The only other significant mobile operating system in the United States is Google’s Android,
20 which works with smartphones manufactured by Samsung, whose U.S. headquarters is located in
21 this district, Google, Motorola, and smaller players. Software applications, known as “apps,” are
22 programs that perform specific tasks at the smartphone user’s request, such as sending messages,
23 playing music, or web browsing. Apps depend on a smartphone’s operating system to function.
24 For example, to make a video call, apps must communicate with a smartphone’s operating system
25 to access various hardware components on the phone, such as the camera, microphone, and
26 speaker. Apps communicate with a smartphone’s operating system through APIs.

1 46. Apps that work with a particular smartphone operating system are called native
2 apps. Thus, Apple’s native iOS apps work with iPhone and native Android apps work with
3 Android smartphones.

4 47. Most app developers do not view Android as a substitute for iOS or iOS as a
5 substitute for Android. The overwhelming majority of users choose a single phone and do not
6 carry an Android phone and the iPhone at the same time. Thus, a developer cannot reach iPhone
7 users on Android or Android users on iPhones. Due to the lack of user multi-homing, most
8 developers create native apps for both iOS and Android to reach the greatest number of smartphone
9 users. For example, a food delivery or ride-sharing app cannot develop an app just for Android
10 phones or just for the iPhone. Developing for both platforms is often necessary for developers to
11 reach the scale they need to be viable.

12 48. It is also important for developers to develop apps for the iPhone and other
13 smartphone platforms because most apps are increasingly “social” in nature and require users on
14 one platform to reach users on the other. For example, the developer of a dating app must enable
15 its users on iPhones to meet users on Android and vice-versa. A money-sharing app must enable
16 users on Android devices to send money to users on iPhones and vice versa.

17 49. App developers typically provide a similar user experience for native apps on
18 iPhones and Android smartphones to minimize the resources and risks of maintaining different
19 features across different smartphones. Even so, developers must program native apps to work with
20 a specific operating system and so they do not always interoperate or synchronize across different
21 operating systems.

22 50. Middleware is software that provides similar APIs and functionality across a
23 diverse set of operating systems and devices. This allows developers to create cross-platform
24 applications without having to write separate code for individual operating systems or devices
25 because developers can rely on the APIs exposed by the middleware rather than APIs that only
26 work on specific operating systems or devices. Apple has long understood how middleware can
27 help promote competition and its myriad benefits, including increased innovation and output, by
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1 increasing scale and interoperability. As Apple’s then-Senior Vice President of Software
2 Engineering testified during the government’s landmark monopolization case in *United States v.*
3 *Microsoft*: “Because we have created QuickTime for both Windows and Macintosh computers,
4 developers can write a single version of a content product that will run on both Macintosh and
5 Windows, without the additional expense of ‘porting’ the product to different operating systems.”
6 In the context of smartphones, examples of middleware include internet browsers, internet or
7 cloud-based apps, super apps, and smartwatches, among other products and services. While not
8 meeting the technical definition of middleware, certain other products and services may
9 nonetheless have the same economic impact as middleware, such as eliminating the added expense
10 of porting a product or experience across hardware or operating systems. Middleware typically
11 refers to both technical middleware and to products and services that, while not technically
12 middleware, have the same economic effect.

13 *Apple and the Relevant Market*

14 51. **Apple.** Apple is a global technology company with headquarters in Cupertino,
15 California. Apple is one of the world’s most valuable public companies with a market
16 capitalization over \$2.5 trillion. In fiscal year 2023, Apple generated annual net revenues of \$383
17 billion and net income of \$97 billion. Apple’s net income exceeds any other company in the
18 Fortune 500 and the gross domestic products of more than 100 countries.

19 52. The iPhone, Apple’s signature product, is the primary driver of Apple’s growth and
20 profitability, routinely commanding profit margins of more than 30 percent on devices alone,
21 significantly higher than its smartphone competitors. iPhone sales have made up a majority of
22 Apple’s annual revenue every year since 2012.

23 53. Apple increasingly extracts revenue from iPhone users beyond the initial
24 smartphone sale. For example, Apple offers iPhone upgrades, apps and in-app payments, paid
25 digital subscription services (e.g., Apple’s music streaming, TV, news, gaming, fitness, and cloud
26 storage subscriptions), accessories (e.g., tracking devices, headphones, chargers, iPhone cases),
27 and more. Apple refers to these offerings as “Services” and “Wearables, Home, and Accessories,”
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1 respectively. In fiscal year 2023, these offerings accounted for nearly one-third of Apple’s total
2 revenue, or four times what Apple earned from selling Mac computers. Some of the largest drivers
3 of revenue within these categories are Apple’s smartwatch, the Apple Watch, and Apple’s App
4 Store, where iPhone users purchase and download apps. In recent years, Services have accounted
5 for an increasing share of Apple’s revenues, while the iPhone has remained the primary gateway
6 through which U.S. consumers access these services.

7 54. **Relevant Market.** All smartphones compete against each other in a broad relevant
8 market. But industry participants, including Apple, assess competition among smartphones in
9 narrower markets that are best understood as submarkets of the larger all-smartphone market.
10 Because Apple chooses not to compete to sell new smartphones in the entry-level tier, the most
11 relevant market to assess its conduct is a narrower submarket that excludes this tier. Regardless of
12 how the market is drawn, however, Apple’s conduct is unlawful.

13 55. Apple’s U.S. market share by revenue is over 70 percent in the performance
14 smartphone market in the United States — a more expensive segment of the broader smartphone
15 market where Apple’s own executives recognize the company competes — and over 65 percent
16 for all smartphones. These market shares have remained durable over the last decade.

17 56. **Performance Smartphone Submarket.** Performance smartphones are a narrower
18 relevant product market within the broader smartphone market. This narrower market includes
19 those smartphones that compete with most iPhones and excludes the lowest-end smartphones,
20 which industry participants sometimes refer to as “entry-level” smartphones. Industry participants
21 recognize performance smartphones as distinct and frequently group smartphones into tiers that
22 include entry-level smartphones and higher tiers such as “premium” or “flagship.”

23 57. Apple has also long recognized a distinction between these higher-end smartphones
24 and lower-end, entry-level smartphones. Apple’s own documents indicate it does not view entry-
25 level smartphones as competing with the iPhone and other performance smartphones.

26 58. Performance smartphones have distinct characteristics and uses as compared to
27 other smartphones. For example, entry-level smartphones are generally made with lower-quality
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1 materials and are less durable (*e.g.*, plastic instead of metal and glass). They have lower-
2 performance components such as slower processors and lower-capacity storage, which prevent
3 users from running more intensive applications or storing large volumes of pictures and data on
4 the device. Entry-level smartphones often lack features such as an NFC antenna that allows
5 consumers to use their phone to make payments or access passes for public transit.

6 59. Consumers typically purchase performance smartphones under different terms than
7 entry-level smartphones. Consumers generally use entry-level smartphones along with pre-paid
8 service plans. By contrast, consumers usually purchase performance smartphones for use with
9 post-paid service plans that include promotional discounts to consumers who purchase
10 performance smartphones.

11 60. Because of these differences, among others, between entry-level smartphones and
12 performance smartphones, entry-level smartphones are not reasonable substitutes for performance
13 smartphones.

14 61. Moreover, competition from non-performance smartphones is not sufficient today
15 to prevent Apple from exercising monopoly power in the performance smartphone market.

16 62. **Smartphones are a Broader Product Market.** Smartphones are also a relevant
17 product market. Smartphones are distinct from phones that offer less capable hardware and
18 software options than smartphones. These other phones, sometimes called “feature phones,” may
19 offer basic web browsing in addition to calling and messaging options, but do not offer the breadth
20 of access to the internet or third-party apps as smartphones. Similarly, these phones often have
21 lower-quality hardware, such as poorer displays, less capable cameras, and rely on physical
22 keyboards instead of smartphone touch screens. Thus, these phones are not reasonable substitutes
23 for smartphones.

24 63. Smartphones are also distinct from other portable devices, such as tablets,
25 smartwatches, and laptop computers. These devices lack the combination of function, size, and
26 portability that consumers rely on in a smartphone, even if they offer some similar capabilities.
27 Thus, none of these other products are reasonable substitutes for smartphones.

1 64. Apple, other participants in the market, and the public recognize that smartphones
2 are distinct from feature phones and other portable devices.

3 65. Competition from feature phones, or other alternatives, is not sufficient to prevent
4 Apple from exercising monopoly power in the smartphone market.

5 66. Apple's smartphone market shares understate Apple's dominance and likely
6 growth in key demographics, including among younger American consumers. For example, one-
7 third of all iPhone users in the United States were born after 1996, as compared to just 10 percent
8 for Samsung, Apple's closest smartphone competitor. As many as 88 percent of U.S. teenagers
9 expect to purchase an iPhone for their next smartphone. iPhone users also tend to come from
10 higher income households. Because smartphone users generally use a single smartphone to access
11 related products and services, locking up key user groups allows Apple to capture greater spending
12 on iPhone-related products and services, realize higher margins per user as compared to its
13 smartphone rivals, and exercise greater control over developers and other smartphone ecosystem
14 participants.

15 67. **The U.S. is a Proper Geographic Market.** The United States is a relevant
16 geographic market for the sale of performance smartphones and smartphones. Users in the United
17 States demand services offered by U.S. retailers when they purchase a smartphone. For example,
18 consumers who purchase a smartphone from their mobile carrier can get assistance with activating
19 their new device, setting it up, and transferring important content like apps, messages, photos, and
20 video to their new smartphone. A smartphone purchased abroad for use in the United States might
21 be incompatible with the consumer's domestic carrier, may not have the necessary radio
22 technology to take advantage of the carrier's highest speed connections, the carrier might not be
23 able to offer support during setup or subsequently, or the phone's warranty may be invalid.

24 68. Consumers must also purchase smartphones through a U.S. retailer if they want to
25 take advantage of valuable promotions offered by their mobile carrier. These same promotions
26 and free financing are unavailable to U.S. consumers who purchase their phones in other countries.

1 69. Finally, potential new smartphone entrants to the U.S. market must also comply
2 with telecommunications regulations and satisfy other legal requirements. No extensive regulatory
3 framework governs how Apple operates its platform with respect to developers, but there are a
4 number of regulatory requirements that must be met in order to enter the smartphone market. For
5 example, some smartphone makers are effectively barred from offering their smartphones to U.S.
6 consumers.

7 70. Consumers in the United States could not avoid or defeat an increase in the price
8 of performance smartphones or smartphones by purchasing and importing smartphones from
9 abroad. This allows Apple to set prices for the same smartphone in the United States separately
10 from those in other countries. For example, Apple lowered the price of the iPhone 11 in China
11 relative to the United States because Apple faced greater competition in China. This additional
12 competition arises in part because a popular super app put competitive pressure on Apple and made
13 it easier for users to switch from an iPhone to a rival smartphone. As a result, Apple is unable to
14 command the same prices for the iPhone in China than it does in the United States due to less
15 competition.

16 71. **History of the iPhone.** The original iPhone cost approximately \$299 —
17 approximately \$450 in 2024 dollars adjusted for inflation — with a two-year contract with a phone
18 carrier.

19 72. At launch, nearly all native apps for the iPhone were created by Apple. There were
20 only about a dozen apps overall, including Calendar, Camera, Clock, Contacts, iPod, Messages,
21 Notes, Phone, Photos, Safari, Stocks, Voice Memos, and Weather.

22 73. Within a year of launching the iPhone, Apple invited third-party developers to
23 create native apps for the iPhone. Apple released its first software development kit — essentially
24 the digital tools for building native apps on Apple’s operating system (iOS) — to encourage and
25 enable third-party developers to create native apps for the iPhone. Apple also offered developers
26 ways to earn money by selling apps and later in-app purchases and subscriptions. By 2009, Apple
27
28

1 was running marketing campaigns highlighting the value that third-party apps provide to iPhone
2 users with the trademarked slogan: “There’s an app for that.”

3 74. Apple’s decision to invite third-party participation on its iPhone platform benefited
4 Apple, too. The proliferation of third-party apps generated billions of dollars in profits for Apple
5 and an iPhone user base of more than 250 million devices in the United States. Apple’s market
6 shares—over 70 percent of the performance smartphone market and over 65 percent of the broader
7 smartphone market—likely understate its monopoly power today.

8 75. While Apple profits from third-party developers that increase the iPhone’s value to
9 users, Apple executives understand that third-party products and services can, in their own words,
10 be “fundamentally disruptive” to its smartphone monopoly, decreasing users’ dependence on
11 Apple and the iPhone and increasing competitive pressure on Apple. Apple therefore willingly
12 sacrifices the short-term benefits it would gain from improved products and services developed by
13 third parties when necessary to maintain its monopoly.

14 76. **Apple Invites Third-Party Investment on the iPhone and then Imposes Tight**
15 **Controls on App Creation and Distribution.** Apple controls how developers distribute and
16 create apps for iPhone users. For example, developers can only distribute native iPhone apps
17 through Apple’s App Store, which is the only way for users to download native iOS apps.
18 Limiting distribution to the Apple App Store enables Apple to exert monopoly power over
19 developers by imposing contractual restrictions and rules that limit the behavior of non-Apple apps
20 and services. Specifically, Apple sets the conditions for apps it allows on the Apple App Store
21 through its App Store Review Guidelines. Under these guidelines, Apple has sole discretion to
22 review and approve all apps and app updates. Apple selectively exercises that discretion to its own
23 benefit, deviating from or changing its guidelines when it suits Apple’s interests and allowing
24 Apple executives to control app reviews and decide whether to approve individual apps or updates.
25 Apple often enforces its App Store rules arbitrarily. And it frequently uses App Store rules and
26 restrictions to penalize and restrict developers that take advantage of technologies that threaten to
27 disrupt, disintermediate, compete with, or erode Apple’s monopoly power.

1 77. Apple also controls app creation by deciding which APIs are available to
2 developers when they make third-party apps. For example, developers cannot provide native apps
3 on the iPhone unless they enter into Apple’s non-negotiable Developer Program License
4 Agreement (DPLA). That agreement requires developers to use public APIs only “in the manner
5 prescribed by Apple.” It also prohibits third-party apps from using APIs that Apple designates as
6 “private.” Apple selectively designates APIs as public or private to benefit Apple, limiting the
7 functionality developers can offer to iPhone users even when the same functionality is available
8 in Apple’s own apps, or even select third-party apps. Similar to Apple’s App Store restrictions,
9 Apple uses its DPLA to impose restrictions that penalize and restrict developers that take
10 advantage of technologies that threaten to disrupt, disintermediate, compete with, or erode Apple’s
11 monopoly power.

12 78. Developers cannot avoid Apple’s control of app distribution and app creation by
13 making web apps—apps created using standard programming languages for web-based content
14 and available over the internet—as an alternative to native apps. Many iPhone users do not look
15 for or know how to find web apps, causing web apps to constitute only a small fraction of app
16 usage. Apple recognizes that web apps are not a good alternative to native apps for developers.
17 As one Apple executive acknowledged, “[d]evelopers can’t make much money on the web.”
18 Regardless, Apple can still control the functionality of web apps because Apple requires all web
19 browsers on the iPhone to use WebKit, Apple’s browser engine—the key software components
20 that third-party browsers use to display web content.

21 79. Nor can developers rely on alternative app stores even though this would benefit
22 developers and users. For example, developers cannot offer iPhone users an app store that only
23 offers apps curated for use by children, which would provide opportunities to improve privacy,
24 security, and child safety. By contrast, Apple allows certain enterprise and public sector customers
25 to offer versions of app stores with more curated apps to better protect privacy and security.

26 80. Apple’s control over both app distribution and app creation gives Apple tremendous
27 power. For example, Apple designates as “private” the APIs needed to send Short Message
28

1 Service, or SMS, text messages, which is a protocol used by mobile carriers since the early 1990s
2 to allow users to send basic text messages to other mobile phone numbers using their own mobile
3 phone numbers. Developers have no technical means to access these private APIs, but even if they
4 did, doing so would breach their developer agreement with Apple, and therefore put the developer
5 at risk of losing the ability to distribute apps through the App Store. For example, Apple prohibits
6 third-party iPhone apps from sending or receiving SMS text messages even though this
7 functionality is available through Apple Messages. Likewise, Apple can control the functionality
8 of third-party apps and accessories through its control of app distribution because if an app includes
9 functionality that Apple does not like, Apple can and does exercise its discretion to simply block
10 the app from the App Store.

11 81. Apple's dominance is such that neither app developers nor iPhone users can benefit
12 from lower cost or higher quality means of distributing apps or purchasing and providing digital
13 products and services. Instead, Apple guarantees that it continues to benefit from the contributions
14 of third-party developers and other platform participants while also protecting itself from the
15 competitive threats and pressure those participants pose to Apple's smartphone monopoly.

16 82. This complaint focuses on Apple's use of its dominance to impose contracts and
17 rules that restrict the behavior and design decisions of companies other than Apple.

18 83. **Smartphones are Platforms.** Smartphones combine the functionality of a
19 traditional mobile phone with advanced hardware and software components. This cluster of
20 services and features results in a distinct product for consumers and developers. For example,
21 smartphones not only make phone calls, but also allow users to listen to music, send text messages,
22 take pictures, play games, access software for work, manage their finances, and browse the
23 internet.

24 84. Smartphones are platforms. Platforms bring together different groups that benefit
25 from each other's participation on the platform. A food delivery app, for example, is a multi- sided
26 platform that brings together restaurants, couriers, and consumers. A two-sided platform, for
27 example, may bring together service providers on the one hand and consumers on the other. The
28

1 technology and economics of a smartphone platform are fundamentally different from the
2 technology and economics of a simultaneous transaction platform, such as a credit card, because
3 smartphone platforms compete over device features and pricing in ways that do not directly relate
4 to app store transactions. Whereas credit card transactions reflect a single simultaneous action that
5 requires both sides of the transaction for either side to exist, consumers value smartphone platforms
6 for a variety of reasons separate from their ability to facilitate a simultaneous transaction.
7 Consumers care about non-transactional components of the phone, such as its camera and
8 processing speed, and they care about non-transactional components of apps, such as their features
9 and functionality.

10 85. The economics of a smartphone platform are such that the platform's value to users
11 — and in turn to the platform operator — increase when new apps and new features are added to
12 the platform. In order to create these economic benefits for itself and its users, Apple has opened
13 its smartphone platform to third-party developers, whose countless inventions and innovations
14 have created enormous value. Apple has willingly opened the platform to third-party developers
15 to capture this value even though there is no extensive regulatory framework requiring it to do so
16 or overseeing how it interacts with those third parties. In this way, smartphone platforms are very
17 different from other platforms, like landline telephone networks, whose value-adding features were
18 built primarily by the platform operator and which were only opened to third parties when the
19 platform operator was required to do so by regulation. When a third-party developer for the iPhone
20 creates a valuable new feature, consumers benefit and consumer demand goes up for Apple's
21 products, increasing the economic value of the iPhone to Apple. This has played out hundreds of
22 thousands of times for the iPhone, resulting in an enormously valuable smartphone platform
23 reflecting the combined contributions of millions of developers.

24 86. In contrast, limiting the features and functionality created by third-party developers
25 — and therefore available to iPhone users — makes the iPhone worse and deprives Apple of the
26 economic value it would gain as the platform operator. It defies economic logic for Apple to
27
28

1 sacrifice the profits it would earn from new features and functionality unless it has some other
2 compensating reason to do so, such as protecting its monopoly profits.

3 **Apple's Monopoly Power**

4 87. Apple has monopoly power in the smartphone and performance smartphone
5 markets because it has the power to control prices or exclude competition in each of them. Apple
6 also enjoys substantial and durable market shares in these markets. Moreover, Apple's market
7 shares likely underestimate Apple's power because they are protected by significant barriers to
8 entry, network effects, and switching costs. Apple recognizes and exploits these barriers to entry,
9 network effects, and switching costs to protect itself from competition from rival platforms and
10 innovations, products, and services that may diminish consumer reliance on the iPhone. Apple's
11 power will likely increase over time.

12 88. In the U.S. market for performance smartphones, where Apple views itself as
13 competing, Apple estimates its market share exceeds 70 percent. These estimates likely understate
14 Apple's market share today. For example, Apple's share among key demographics, including
15 younger audiences and higher-income households, is even larger. Even in the broadest market
16 consisting of all smartphones — including many smartphones that Apple and industry participants
17 do not view as competing with Apple's iPhones and other higher-end phones — Apple's share is
18 more than 65 percent by revenue. Similarly, even if consumers choose one phone over another,
19 the vast majority of developers consider iPhones and Android devices as complements because
20 developers must build apps that run on both platforms due to the lack of user multi-homing. In
21 effect, the lack of multi-homing among users necessitates multi-homing among developers. This
22 market reality increases the power that Apple is able to exercise over developers that seek to reach
23 users on smartphones—especially performance smartphones that run sophisticated apps.

24 89. Apple's high market shares are durable. Over the last decade, Apple increased its
25 share of smartphones sold in the United States most years. Through the same period, Apple
26 collected more than half the revenue for all smartphones sold in the United States.

1 90. Apple’s monopoly power in the relevant markets is protected by substantial barriers
2 to entry and expansion. For example, given that fewer than ten percent of smartphone purchasers
3 in the United States have yet to buy their first smartphone, there are fewer new customers available
4 for Apple’s rivals. Instead, rivals must encourage existing iPhone users to switch from using an
5 iPhone to using another smartphone when they replace or upgrade their phone. As a result,
6 switching costs — many created or exacerbated by Apple — impose substantial barriers to entry
7 and expansion for rival smartphones. This barrier is increasingly impenetrable. Nearly 90 percent
8 of iPhone owners in the United States replace their iPhone with another iPhone. The increased
9 switching costs that consumers experience because of Apple’s conduct underpins these
10 exceedingly high retention rates.

11 91. Apple’s monopoly power in the relevant markets is protected by other barriers to
12 entry, expansion, or repositioning as well. For example, introducing a new smartphone requires
13 considerable investments in acquiring expensive and scarce components such as mobile chips and
14 specialized glass for screens. Other significant barriers to entry include product design, software
15 development, regulatory approval, manufacturing, marketing, and customer service. Because an
16 enormous amount of smartphones are bought through mobile carriers, new entrants or those
17 seeking to expand or reposition must meet the carriers’ technical requirements to access the major
18 carrier networks in the United States. New entrants and smaller rivals must also negotiate
19 distribution agreements and persuade carriers and other retailers to promote their products to
20 consumers. As explained above, rival smartphones must also overcome the substantial network
21 effects generated by interactions between users, developers, and others who interact with the
22 iPhone.

23 92. Apple’s iPhone platform is protected by several additional barriers to entry and
24 expansion, including strong network and scale effects and high switching costs and frictions. For
25 example, if iPhone users want to buy an Android smartphone, they are likely to face significant
26 financial, technological, and behavioral obstacles to switching. The user may need to re-learn how
27 to operate their smartphone using a new interface, transfer large amounts of data (*e.g.*, contacts),
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1 purchase new apps, or transfer or buy new subscriptions and accessories. These switching costs
2 and frictions are even higher when software applications, APIs, and other functionality do not help
3 the different devices and operating systems communicate and interoperate. These switching costs
4 and frictions increase the “stickiness” of the iPhone, making users more beholden to the
5 smartphone manufacturer and platform operator.

6 93. Many prominent, well-financed companies have tried and failed to successfully
7 enter the relevant markets because of these entry barriers. Past failures include Amazon (which
8 released its Fire mobile phone in 2014 but could not profitably sustain its business and exited the
9 following year); Microsoft (which discontinued its mobile business in 2017); HTC (which exited
10 the market by selling its smartphone business to Google in September 2017); and LG (which exited
11 the smartphone market in 2021). Today, only Samsung and Google remain as meaningful
12 competitors in the U.S. performance smartphone market. Barriers are so high that Google is a
13 distant third to Apple and Samsung despite the fact that Google controls the development of the
14 Android operating system.

15 94. Apple’s monopoly power is separately demonstrated by direct indicia. For
16 example, Apple can and does profitably forego innovation without fear of losing customers to
17 competitors. For example, Apple’s vice president of iPhone marketing explained in February 2020:
18 “In looking at it with hindsight, I think going forward we need to set a stake in the ground for what
19 features we think are ‘good enough’ for the consumer. I would argue were [sic] already doing
20 *more* than what would have been good enough.” After identifying old features that “would have
21 been good enough today if we hadn’t introduced [updated features] already,” she explained,
22 “anything new and especially expensive needs to be rigorously challenged before it’s allowed into
23 the consumer phone.”

24 95. Apple’s profits and profit margins, for nearly every aspect of the iPhone, are further
25 evidence of Apple’s monopoly power. For example, Apple’s per-unit smartphone profit margins
26 are far more than its next most profitable rival. Apple charges carriers considerably more than its
27 rivals to buy and resell its smartphones to the public and employs contract clauses that may impede
28

1 the ability of carriers to promote rival smartphones, a harmful exercise of monopoly power that is
2 hidden to most consumers. Apple extracts fees from developers — as much as 30 percent when
3 users purchase apps or make in-app payments. Apple also extracts a 0.15 percent commission
4 from banks on credit card transactions through its digital wallet, while none of its smartphone
5 competitors with digital wallets charge any fee. Apple predicts that it will collect nearly \$1 billion
6 in worldwide revenue on Apple Pay fees by 2025. A recent report by the U.S. Consumer Financial
7 Protection Bureau suggest these revenues will only increase, as “analysts expect the value of digital
8 wallet tap-to-pay transactions will grow by over 150 percent by 2028.”

9 96. Apple increasingly charges developers additional fees to promote their apps in the
10 App Store as well. In fact, this is one of the fastest-growing parts of Apple’s services business,
11 with revenue “increasing by more than a third to \$4.4B in FY 2022.”

12 97. These indicia of Apple’s monopoly power are direct evidence of its monopoly
13 power in the relevant markets.

14 **Apple Maintains Unlawful Monopoly Power**

15 98. **Apple Harms Competition by Imposing Contractual Restrictions, Fees, and**
16 **Taxes on App Creation and Distribution.** Soon after the iPhone’s introduction and
17 notwithstanding its success, Apple began to fear that disintermediation of its platform and the
18 commoditization of the iPhone would threaten Apple’s substantial profits from iPhone sales and
19 related revenue streams.

20 99. Accordingly, Apple exercised its control of app creation and app distribution in key
21 cases to cement the iPhone and App Store as the primary gateway to apps, products, and services.
22 Apple often claims these rules and restrictions are necessary to protect user privacy or security,
23 but Apple’s documents tell a different story. In reality, Apple imposes certain restrictions to
24 benefit its bottom line by thwarting direct and disruptive competition for its iPhone platform fees
25 and/or for the importance of the iPhone platform itself.

26 100. Three aspects of Apple’s efforts to protect and exploit its smartphone monopoly are
27 notable.

1 101. *First*, Apple exercises its control over app distribution and app creation to dictate
2 how developers innovate for the iPhone, enforcing rules and contractual restrictions that stop or
3 delay developers from innovating in ways that threaten Apple’s power. In so doing, Apple
4 influences the direction of innovation both on and off the iPhone.

5 102. *Second*, Apple drives iPhone users away from products and services that compete
6 with or threaten Apple. In doing so, Apple increases the cost and friction of switching from the
7 iPhone to another smartphone and generates extraordinary profits through subscription services
8 (like Apple’s proprietary music, gaming, cloud storage, and news services), advertisements within
9 the App Store, and accessories like headphones and smartwatches.

10 103. *Third*, Apple uses these restrictions to extract monopoly rents from third parties in
11 a variety of ways, including app fees and revenue-share requirements. For most of the last 15
12 years, Apple collected a tax in the form of a 30 percent commission on the price of any app
13 downloaded from the App Store, a 30 percent tax on in-app purchases, and fees to access the tools
14 needed to develop iPhone native apps in the first place. While Apple has reduced the tax it collects
15 from a subset of developers, Apple still extracts 30 percent from many app makers. Apple also
16 generates substantial and increasing revenue by charging developers to help users find their apps
17 in the App Store — something that, for years, Apple told developers was part of the reason they
18 paid a 30 percent tax in the first place. For example, Apple will sell keyword searches for an app
19 to someone other than the owner of the app. Apple is able to command these rents from companies
20 of all sizes, including some of the largest and most sophisticated companies in the world.

21 104. As Apple exercised its control of app distribution and app creation, Apple slowed
22 its own iPhone innovation and extracted more revenue and profit from its existing customers
23 through subscriptions, advertising, and cloud services. These services increase the cost of
24 switching from the iPhone to another smartphone because many of these services — including its
25 proprietary gaming, cloud storage, and news service — are exclusive to the Apple ecosystem,
26 causing significant frictions for iPhone users who try to use alternative services on another
27 smartphone. Apple’s conduct demonstrates that Apple recognized the importance of digital
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1 products and services for the success of the iPhone while at the same time it restricted the
2 development and growth of non-iPhone products and services — especially those that might make
3 it easier for users to switch from the iPhone to another smartphone.

4 105. Each step in Apple’s course of conduct built and reinforced the moat around its
5 smartphone monopoly. The cumulative effect of this course of conduct has been to maintain and
6 entrench Apple’s smartphone monopoly at the expense of the users, developers, and other third
7 parties who helped make the iPhone what it is today. Despite major technological changes over
8 the years, Apple’s power to control app creation and distribution and extract fees from developers
9 has remained largely the same, unconstrained by competitive pressures or market forces. That this
10 conduct is impervious to competition reflects the success of Apple’s efforts to create and maintain
11 its smartphone monopoly, the strength of that monopoly, and the durability of Apple’s power.

12 106. Apple’s monopoly maintenance has taken many forms and continues to evolve
13 today. Apple’s anticompetitive and exclusionary course of conduct is exemplified by its
14 contractual rules and restrictions targeting several products and services: super apps, cloud
15 streaming apps, messaging apps, smartwatches, and digital wallets. By stifling these technologies,
16 and many others, Apple reinforces the moat around its smartphone monopoly not by making its
17 products more attractive to users, but by discouraging innovation that threatens Apple’s
18 smartphone monopoly or the disintermediation of the iPhone. Apple continues to expand and shift
19 the scope and categories of anticompetitive conduct such that the cumulative anticompetitive effect
20 of Apple’s conduct is even more powerful than that of each exclusionary act standing alone.

21 *i. Super Apps: Apple Prevented Apps from Threatening its Smartphone*
22 *Monopoly by Undermining Programs that Reduce User Dependence on*
23 *the iPhone*

24 107. For years, Apple denied its users access to super apps because it viewed them as
25 “fundamentally disruptive” to “existing app distribution and development paradigms” and
26 ultimately Apple’s monopoly power. Apple feared super apps because it recognized that as they
27 become popular, “demand for iPhone is reduced.” So, Apple used its control over app distribution
28

1 and app creation to effectively prohibit developers from offering super apps instead of competing
2 on the merits.

3 108. A super app is an app that can serve as a platform for smaller “mini” programs
4 developed using programming languages such as HTML5 and JavaScript. By using programming
5 languages standard in most web pages, mini programs are cross platform, meaning they work the
6 same on any web browser and on any device. Developers can therefore write a single mini program
7 that works whether users have an iPhone or another smartphone.

8 109. Super apps can provide significant benefits to users. For example, a super app that
9 incorporates a multitude of mini programs might allow users to easily discover and access a wide
10 variety of content and services without setting up and logging into multiple apps, not unlike how
11 Netflix and Hulu allow users to find and watch thousands of movies and television shows in a
12 single app. As one Apple executive put it, “who doesn’t want faster, easier to discover apps that
13 do everything a full app does?” Restricting super apps makes users worse off and sacrifices the
14 short-term profitability of iPhones for Apple.

15 110. Super apps also reduce user dependence on the iPhone, including the iOS operating
16 system and Apple’s App Store. This is because a super app is a kind of middleware that can host
17 apps, services, and experiences without requiring developers to use the iPhone’s APIs or code.

18 111. As users interact with a super app, they rely less on the smartphone’s proprietary
19 software and more on the app itself. Eventually, users become more willing to choose a different
20 smartphone because they can access the same interface, apps, and content they desire on any
21 smartphone where the super app is also present. Moreover, developers can write mini programs
22 that run on the super app without having to write separate apps for iPhones and other smartphones.
23 This lowers barriers to entry for smartphone rivals, decreases Apple’s control over third-party
24 developers, and reduces switching costs.

25 112. Apple recognizes that super apps with mini programs would threaten its monopoly.
26 As one Apple manager put it, allowing super apps to become “the main gateway where people
27

1 play games, book a car, make payments, etc.” would “let the barbarians in at the gate.” Why?
2 Because when a super app offers popular mini programs, “iOS stickiness goes down.”

3 113. Apple’s fear of super apps is based on first-hand experience with enormously
4 popular super apps in Asia. Apple does not want U.S. companies and U.S. users to benefit from
5 similar innovations. For example, in a Board of Directors presentation, Apple highlighted the
6 “[u]ndifferentiated user experience on [a] super platform” as a “major headwind” to growing
7 iPhone sales in countries with popular super apps due to the “[l]ow stickiness” and “[l]ow
8 switching cost.” For the same reasons, a super app created by a U.S. company would pose a similar
9 threat to Apple’s smartphone dominance in the United States. Apple noted as a risk in 2017 that
10 a potential super app created by a specific U.S. company would “replace[] usage of native OS and
11 apps resulting in commoditization of smartphone hardware.”

12 114. Apple did not respond to the risk that super apps might disrupt its monopoly by
13 innovating. Instead, Apple exerted its control over app distribution to stifle others’ innovation.
14 Apple created, strategically broadened, and aggressively enforced its App Store Guidelines to
15 effectively block apps from hosting mini programs. Apple’s conduct disincentivized investments
16 in mini program development and caused U.S. companies to abandon or limit support for the
17 technology in the United States.

18 115. In particular, part of what makes super apps valuable to consumers is that finding
19 and using mini programs is easier than using an app store and navigating many separate apps,
20 passwords, and set-up processes. Instead of making mini program discovery easy for users,
21 however, Apple made it nearly impossible.

22 116. Since at least 2017, Apple has arbitrarily imposed exclusionary requirements that
23 unnecessarily and unjustifiably restrict mini programs and super apps. For example, Apple
24 required apps in the United States to display mini programs using a flat, text-only list of mini
25 programs. Apple also banned displaying mini programs with icons or tiles, such as descriptive
26 pictures of the content or service offered by the mini program. Apple also banned apps from
27 categorizing mini programs, such as by displaying recently played games or more games by the
28

1 same developer. These restrictions throttle the popularity of mini programs and ultimately make
2 the iPhone worse because it discourages developers from creating apps and other content that
3 would be attractive to iPhone users.

4 117. Apple also selectively enforced its contractual rules with developers to prevent
5 developers from monetizing mini programs, hurting both users and developers. For example,
6 Apple blocked mini programs from accessing the APIs needed to implement Apple's in-app
7 payment (IAP) system — even if developers were willing to pay Apple's monopoly tax. Similarly,
8 Apple blocked developers' ability to use in-app payment methods other than directly using IAP.
9 For instance, super apps could create a virtual currency for consumers to use in mini programs,
10 but Apple blocked this too. Apple, however, allows other, less-threatening apps to do so.

11 ***ii. Cloud Streaming Apps: Apple Prevented Developers from Offering***
12 ***Cloud Gaming Apps that Reduce Dependence on the iPhone's Expensive***
13 ***Hardware***

14 118. For years, Apple blocked cloud gaming apps that would have given users access to
15 desirable apps and content without needing to pay for expensive Apple hardware because this
16 would threaten its monopoly power. In Apple's own words, it feared a world where "all that
17 matters is who has the cheapest hardware" and consumers could "buy[] a [expletive] Android for
18 25 bux at a garage sale and . . . have a solid cloud computing device" that "works fine." Apple's
19 conduct made its own product worse because consumers missed out on apps and content. This
20 conduct also cost Apple substantial revenues from third-party developers. At the same time, Apple
21 also made other smartphones worse by stifling the growth of these cross-platform apps on other
22 smartphones. Importantly, Apple prevented the emergence of technologies that could lower the
23 price that consumers pay for iPhones.

24 119. Cloud streaming apps let users run a computationally intensive program without
25 having to process or store the program on the smartphone itself. Instead, a user's smartphone
26 leverages the computing power of a remote server, which runs the program and streams the result
27 back to the phone. Cloud streaming allows developers to bring cutting-edge technologies and
28

1 services to smartphone consumers — including gaming and interactive artificial intelligence
2 services — even if their smartphone includes hardware that is less powerful than an iPhone.

3 120. Cloud streaming has significant benefits for users. For example, Apple has
4 promoted the iPhone 15 by promising that its hardware is powerful enough to enable “next-level
5 performance and mobile gaming.” But powerful hardware is unnecessary if games are played via
6 cloud streaming apps. For a cloud game, the user experiences and plays the game on the
7 smartphone, but the game is run by hardware and software in remote computing centers (“the
8 cloud”). Thus, cloud gaming apps deliver rich gaming experiences on smartphones without the
9 need for users to purchase powerful, expensive hardware. As a result, users with access to cloud
10 streamed games may be more willing to switch from an iPhone to a smartphone with less expensive
11 hardware because both smartphones can run desirable games equally well.

12 121. Cloud streaming also has significant advantages for developers. For example,
13 instead of re-writing the same game for multiple operating systems, cloud platforms can act as
14 middleware that allow developers to create a single app that works across iOS, Android, and other
15 operating systems. Cloud streaming provides more and simpler options for offering subscriptions,
16 collecting payments, and distributing software updates as well. All of this helps game developers
17 reach economies of scale and profitability they might not achieve without offering cloud gaming
18 apps and reduces their dependence on iOS and Apple’s App Store.

19 122. Apple wielded its power over app distribution to effectively prevent third-party
20 developers from offering cloud gaming subscription services as a native app on the iPhone. Even
21 today, none are currently available on the iPhone.

22 123. For years, Apple imposed the onerous requirement that any cloud streaming game
23 — or any update to a cloud streaming game — be submitted as a stand-alone app for approval by
24 Apple. Having to submit individual cloud streaming games for review by Apple increased the cost
25 of releasing games on the iPhone and limited the number of games a developer could make
26 available to iPhone users. For example, the highest quality games, referred to as AAA games,
27 typically require daily or even hourly updates across different platforms. If these updates need to
28

1 be individually approved by Apple, developers must either delay their software updates across all
2 platforms or only update their games on non-iOS platforms, potentially making the iOS version of
3 the game incompatible with other versions on other platforms until Apple approves the update.
4 Neither option is tenable for players or developers.

5 124. Until recently, Apple required users to download cloud streaming software
6 separately for each individual game, install identical app updates for each game individually, and
7 make repeated trips to Apple's App Store to find and download games. Apple's conduct made
8 cloud streaming apps so unattractive to users that no developer designed one for the iPhone.

9 125. Apple undermines cloud gaming apps in other ways too, such as by requiring cloud
10 games to use Apple's proprietary payment system and necessitating game overhauls and payment
11 redesigns specifically for the iPhone. Apple's rules and restrictions effectively force developers
12 to create a separate iOS-specific version of their app instead of creating a single cloud-based
13 version that is compatible with several operating systems, including iOS. As a result, developers
14 expend considerable time and resources re-engineering apps to bring cross- platform apps like
15 multiplayer games to the iPhone.

16 126. Cloud streaming apps broadly speaking — not just gaming — could force Apple to
17 compete more vigorously against rivals. As one Apple manager recognized, cloud streaming
18 eliminates “a big reason for high-performance local compute” and thus eliminates one of the
19 iPhone's advantages over other smartphones because then “all that matters is who has the cheapest
20 hardware.” Accordingly, it reduces the need for users to buy expensive phones with advanced
21 hardware. This problem does not “stop at high-end gaming,” but applies to “a number of high-
22 compute requirement applications.”

23 ***iii. Messaging: Apple Protects its Smartphone Monopoly by***
24 ***Degrading and Undermining Cross Platform Messaging Apps and***
25 ***Rival Smartphones***

26 127. Apple undermines cross-platform messaging to reinforce “obstacle[s] to iPhone
27 families giving their kids Android phones.” Apple could have made a better cross-platform
28

1 messaging experience itself by creating iMessage for Android but concluded that doing so “will
2 hurt us more than help us.” Apple therefore continues to impede innovation in smartphone
3 messaging, even though doing so sacrifices the profits Apple would earn from increasing the value
4 of the iPhone to users, because it helps build and maintain its monopoly power.

5 128. Messaging apps allow smartphone users to communicate with friends, family, and
6 other contacts and are often the primary way users interact with their smartphones. In Apple’s
7 own words, messaging apps are “a central artery through which the full range of customer
8 experience flows.”

9 129. Smartphone messaging apps operate using “protocols,” which are the systems that
10 enable communication and determine the features available when users interact with each other
11 via messaging apps.

12 130. One important protocol used by messaging apps is SMS. SMS offers a broad user
13 network, but limited functionality. For example, all mobile phones can receive SMS messages,
14 but SMS does not support modern messaging features, such as large files, edited messages, or
15 reactions like a “thumbs up” or a heart.

16 131. Many messaging apps — such as WhatsApp, Facebook Messenger, and Signal —
17 use proprietary, internet-based protocols, which are sometimes referred to as OTT (“over the top”)
18 protocols. OTT messaging typically involves more secure and advanced features, such as
19 encryption, typing indicators, read receipts, the ability to share rich media, and disappearing or
20 ephemeral messages. While all mobile phones can send and receive SMS messages, OTT only
21 works between users who sign up for and communicate through the same messaging app. As a
22 result, a user cannot send an OTT message to a friend unless the friend also uses the same
23 messaging app.

24 132. Apple makes third-party messaging apps on the iPhone worse generally and relative
25 to Apple Messages, Apple’s own messaging app. By doing so, Apple is knowingly and
26 deliberately degrading quality, privacy, and security for its users. For example, Apple designates
27 the APIs needed to implement SMS as “private,” meaning third-party developers have no technical
28

1 means of accessing them and are prohibited from doing so under Apple’s contractual agreements
2 with developers. As a result, third-party messaging apps cannot combine the “text to anyone”
3 functionality of SMS with the advanced features of OTT messaging. Instead, if a user wants to
4 send somebody a message in a third-party messaging app, they must first confirm whether the
5 person they want to talk to has the same messaging app and, if not, convince that person to
6 download and use a new messaging app. By contrast, if an Apple Messages user wants to send
7 somebody a message, they just type their phone number into the “To:” field and send the message
8 because Apple Messages incorporates SMS and OTT messaging.

9 133. Apple prohibits third-party developers from incorporating other important features
10 into their messaging apps as well. For example, third-party messaging apps cannot continue
11 operating in the background when the app is closed, which impairs functionality like message
12 delivery confirmation. And when users receive video calls, third-party messaging apps cannot
13 access the iPhone camera to allow users to preview their appearance on video before answering a
14 call. Apple Messages incorporates these features.

15 134. If third-party messaging apps could incorporate these features, they would be more
16 valuable and attractive to users, and the iPhone would be more valuable to Apple in the short term.
17 For example, by incorporating SMS, users would avoid the hassle of convincing someone to
18 download a separate app before sending them a message. Third-party messaging apps could also
19 offer the ability to schedule SMS messages to be sent in the future, suggest replies, and support
20 robust multi-device use on smartphones, tablets, and computers — as they have already done on
21 Android.

22 135. Moreover, messaging apps benefit from significant network effects — as more
23 people use the app, there are more people to communicate with through the app, which makes the
24 app more valuable and in turn attracts even more users. Incorporating SMS would help third- party
25 messaging apps grow their network and attract more users. Instead, Apple limits the reach of third-
26 party messaging apps and reinforces network effects that benefit Apple.

1 136. Recently, Apple has stated that it plans to incorporate more advanced features for
2 cross-platform messaging in Apple Messages by adopting a 2019 version of the RCS protocol
3 (which combines aspects of SMS and OTT). Apple has not done so yet, and in any event it would
4 not cure Apple’s efforts to undermine third-party messaging apps because third-party messaging
5 apps will still be prohibited from incorporating RCS just as they are prohibited from incorporating
6 SMS. Moreover, the RCS standard will continue to improve over time, and if Apple does not
7 support later versions of RCS, cross-platform messaging using RCS could soon be broken on
8 iPhones anyway.

9 137. In addition to degrading the quality of third-party messaging apps, Apple
10 affirmatively undermines the quality of rival smartphones. For example, if an iPhone user
11 messages a non-iPhone user in Apple Messages — the default messaging app on an iPhone —
12 then the text appears to the iPhone user as a green bubble and incorporates limited functionality:
13 the conversation is not encrypted, videos are pixelated and grainy, and users cannot edit messages
14 or see typing indicators. This signals to users that rival smartphones are lower quality because the
15 experience of messaging friends and family who do not own iPhones is worse — even though
16 Apple, not the rival smartphone, is the cause of that degraded user experience. Many non-iPhone
17 users also experience social stigma, exclusion, and blame for “breaking” chats where other
18 participants own iPhones. This effect is particularly powerful for certain demographics, like
19 teenagers — where the iPhone’s share is 85 percent, according to one survey. This social pressure
20 reinforces switching costs and drives users to continue buying iPhones — solidifying Apple’s
21 smartphone dominance not because Apple has made its smartphone better, but because it has made
22 communicating with other smartphones worse.

23 138. Apple recognizes that its conduct harms users and makes it more difficult to switch
24 smartphones. For example, in 2013, Apple’s Senior Vice President of Software Engineering
25 explained that supporting cross-platform OTT messaging in Apple Messages “would simply serve
26 to remove [an] obstacle to iPhone families giving their kids Android phones.” In March 2016,
27
28

1 Apple's Senior Vice President of Worldwide Marketing forwarded an email to CEO Tim Cook
2 making the same point: "moving iMessage to Android will hurt us more than help us."

3 139. In 2022, Apple's CEO Tim Cook was asked whether Apple would fix iPhone-to-
4 Android messaging. "It's tough," the questioner implored Mr. Cook, "not to make it personal but
5 I can't send my mom certain videos." Mr. Cook's response? "Buy your mom an iPhone."

6 140. Recently, Apple blocked a third-party developer from fixing the broken cross-
7 platform messaging experience in Apple Messages and providing end-to-end encryption for
8 messages between Apple Messages and Android users. By rejecting solutions that would allow
9 for cross-platform encryption, Apple continues to make iPhone users' less secure than they could
10 otherwise be.

11 *iv. Smartwatches: Apple Protects its Smartphone Monopoly*
12 *by Impeding the Development of Cross-Platform Smartwatches*

13 141. Apple uses smartwatches, a costly accessory, to prevent iPhone customers from
14 choosing other phones. Having copied the idea of a smartwatch from third-party developers, Apple
15 now prevents those developers from innovating and limits the Apple Watch to the iPhone to
16 prevent a negative "impact to iPhone sales."

17 142. Smartwatches are wrist-worn devices with an interactive display and
18 accompanying apps that let users perform a variety of functions, including monitoring health data,
19 responding to messages and notifications, performing mobile payments, and, of course, telling
20 time. Smartwatches must generally be paired with a smartphone to operate and unlock their full
21 functionality, such as receiving and responding to emails and text messages or answering phone
22 calls. Because of the significant cost of buying a smartwatch, users are less willing to choose a
23 smartphone if it is not compatible with their smartwatch.

24 143. Apple's smartwatch — Apple Watch — is only compatible with the iPhone.
25 Hence, if Apple can steer a user towards buying an Apple Watch, it becomes more costly for that
26 user to purchase a different kind of smartphone because doing so requires the user to abandon their
27 costly Apple Watch and purchase a new, Android-compatible smartwatch.

1 144. By contrast, cross-platform smartwatches can reduce iPhone users' dependence on
2 Apple's proprietary hardware and software. If a user purchases a third-party smartwatch that is
3 compatible with the iPhone and other smartphones, they can switch from the iPhone to another
4 smartphone (or vice versa) by simply downloading the companion app on their new phone and
5 connecting to their smartwatch via Bluetooth. Moreover, as users interact with a smartwatch, e.g.,
6 by accessing apps from their smartwatch instead of their smartphone, users rely less on a
7 smartphone's proprietary software and more on the smartwatch itself. This also makes it easier for
8 users to switch from an iPhone to a different smartphone.

9 145. Apple recognizes that driving users to purchase an Apple Watch, rather than a third-
10 party cross-platform smartwatch, helps drive iPhone sales and reinforce the moat around its
11 smartphone monopoly. For example, in a 2019 email the Vice President of Product Marketing for
12 Apple Watch acknowledged that Apple Watch "may help prevent iPhone customers from
13 switching." Surveys have reached similar conclusions: many users say the other devices linked to
14 their iPhone are the reason they do not switch to Android.

15 146. Apple also recognizes that making Apple Watch compatible with Android would
16 "remove[an] iPhone differentiator."

17 147. Apple uses its control of the iPhone, including its technical and contractual control
18 of critical APIs, to degrade the functionality of third-party cross-platform smartwatches in at least
19 three significant ways: *First*, Apple deprives iPhone users with third-party smartwatches of the
20 ability to respond to notifications. *Second*, Apple inhibits third-party smartwatches from
21 maintaining a reliable connection with the iPhone. *Third*, Apple undermines the performance of
22 third-party smartwatches that connect directly with a cellular network. In doing so, Apple
23 constrains user choice and crushes innovation that might help fill in the moat around Apple's
24 smartphone monopoly.

25 148. The ability to respond to notifications, e.g., new messages or app alerts, directly
26 from a smartwatch is one of the top considerations for smartwatch purchasers, and one of the most
27 used product features when it is available. According to Apple's own market research, the ability
28

1 to “[s]end and receive text messages from social and messaging apps” is a critical feature for a
2 smartwatch. In 2013, when Apple started offering users the ability to connect their iPhones with
3 third-party smartwatches, Apple provided third-party smartwatch developers with access to
4 various APIs related to the Apple Notification Center Service, Calendar, Contacts, and
5 Geolocation. The following year, Apple introduced the Apple Watch and began limiting third-
6 party access to new and improved APIs for smartwatch functionality. For example, Apple prevents
7 third-party smartwatches from accessing APIs related to more advanced Actionable Notifications,
8 so iPhone users cannot respond to notifications using a third-party smartwatch. Instead, Apple
9 provides third-party smartwatches access to more limited APIs that do not allow users to respond
10 to a message, accept a calendar invite, or take other actions available on Apple Watch.

11 149. A reliable Bluetooth connection is essential for a smartwatch to connect wirelessly
12 with a smartphone, and thereby function as a companion to the user’s smartphone and unlock its
13 full functionality. Apple prohibits third-party smartwatch developers from maintaining a
14 connection even if a user accidentally turns off Bluetooth in the iPhone’s control center. Apple
15 gives its own Apple Watch that functionality, however, because Apple recognizes that users
16 frequently disable Bluetooth on their iPhone without realizing that doing so disconnects their
17 watch. As a result, iPhone users have a worse experience when they try to use a third-party
18 smartwatch with their iPhone. Apple also requires users to turn on “Background App Refresh”
19 and disable the battery-saving “Low Power Mode” in their iPhone settings for third- party
20 smartwatches to remain consistently connected to their companion app, which is necessary to
21 allow a user’s iPhone and their smartwatch to update and share data about the weather or exercise
22 tracking, even though Apple does not impose similar requirements for Apple Watch.

23 150. Cellular-enabled smartwatches incorporate the ability to connect directly to a
24 cellular network, allowing users to make calls, send messages, and download data even if their
25 smartwatch is not paired to a smartphone. Cellular-enabled smartwatches are popular with
26 consumers, making up approximately 20 percent of Apple Watch sales. Apple Watch users can
27 use the same phone number for their smartphone and smartwatch when connected to the cellular
28

1 network. As a result, messages are delivered to both the user’s smartphone and smartwatch,
2 providing an integrated messaging experience. Although it is technologically feasible for Apple
3 to allow an iPhone user with a third-party smartwatch to do the same, Apple instead requires these
4 users to disable Apple’s iMessage service on the iPhone in order to use the same phone number
5 for both devices. This is a non-starter for most iPhone users. In practice, iPhone users with a third-
6 party smartwatch must maintain separate phone numbers for the two devices, worsening their user
7 experience, and may miss out on receiving messages sent to their primary iPhone number.

8 *v. Digital Wallets: Apple Restricts Cross-Platform Digital Wallets*
9 *on the iPhone, Reinforcing Barriers to Consumers Switching to*
10 *Rival Smartphones*

11 151. Apple recognizes that paying for products and services with a digital wallet will
12 eventually become “something people do every day of their lives.” But Apple has used its control
13 over app creation, including its technical and contractual control over API access, to effectively
14 block third-party developers from creating digital wallets on the iPhone with tap-to- pay
15 functionality, which is an important feature of a digital wallet for smartphones. As a result, Apple
16 maintains complete control over how users make tap-to-pay payments with their iPhone. Apple
17 also deprives users of the benefits and innovations third-party wallets would provide so that it can
18 protect “Apple’s most important and successful business, iPhone.”

19 152. Digital wallets are apps that allow a user to store and use passes and credentials,
20 including credit cards, personal identification, movie tickets, and car keys, in a single app.
21 For example, digital wallets allow users to make in-person payments by tapping their device on a
22 payment terminal rather than tapping or swiping a physical credit card. Digital wallets can also be
23 used for transactions in mobile apps and mobile websites.

24 153. Absent Apple’s conduct, cross-platform digital wallets could also be used to
25 manage and pay for subscriptions and in-app purchases.

1 154. Apple Wallet is Apple’s proprietary digital wallet on the iPhone. Apple Wallet
2 incorporates Apple’s proprietary payment system Apple Pay, which processes digital payments on
3 the web, in apps, and at merchant points of sale.

4 155. Today, Apple Wallet offers users a way to make these payments using their iPhone.
5 But Apple envisions that Apple Wallet will ultimately supplant multiple functions of physical
6 wallets to become a single app for shopping, digital keys, transit, identification, travel,
7 entertainment, and more. As users rely on Apple Wallet for payments and beyond, it “drive[s]
8 more sales of iPhone and increase[s] stickiness to the Apple ecosystem” because Apple Wallet is
9 only available on the iPhone. Thus, switching to a different smartphone requires leaving behind
10 the familiarity of an everyday app, setting up a new digital wallet, and potentially losing access to
11 certain credentials and personal data stored in Apple Wallet.

12 156. Cross-platform digital wallets would offer an easier, more seamless, and potentially
13 more secure way for users to switch from the iPhone to another smartphone. For example, if third-
14 party developers could create cross-platform wallets, users transitioning away from the iPhone
15 could continue to use the same wallet, with the same cards, IDs, payment histories, peer-to-peer
16 payment contacts, and other information, making it easier to switch smartphones. And because
17 many users already use apps created by their preferred financial institutions, if these financial
18 institutions offered digital wallets, then users would have access to new apps and technologies
19 without needing to share their private financial data with additional third parties, including Apple.
20 In the short term, these improved features would make the iPhone more attractive to users and
21 profitable for Apple.

22 157. Accordingly, the absence of cross-platform digital wallets with tap-to-pay
23 capability on the iPhone makes it harder for iPhone users to purchase a different smartphone.

24 158. The most important function for attracting users to a digital wallet for smartphones
25 is the ability to offer tap-to-pay, *i.e.*, the ability to make in-person payments by tapping your
26 smartphone on a payment terminal. Apple uses its control over app creation and API access to
27

1 selectively prohibit developers from accessing the near-field communication (NFC) hardware
2 needed to provide tap-to-pay through a digital wallet app.

3 159. Apple Wallet is the only app on the iPhone that can use NFC to facilitate tap-to-
4 pay. While Apple actively encourages banks, merchants, and other parties to participate in Apple
5 Wallet, Apple simultaneously exerts its smartphone monopoly to block these same partners from
6 developing better payment products and services for iPhone users.

7 160. Apple also uses its smartphone monopoly to extract payments from banks, which
8 need to access customers that use digital wallets on iPhones. Since Apple first launched Apple
9 Pay—long before it achieved meaningful adoption — Apple has charged issuing banks 15 basis
10 points (0.15 percent) for each credit card transaction mediated by Apple Pay. Payment apps from
11 Samsung and Google are free to issuing banks. Apple’s fees are a significant expense for issuing
12 banks and cut into funding for features and benefits that banks might otherwise offer smartphone
13 users. The volume of impacted transactions is large and growing. A U.S. Consumer Financial
14 Protection Bureau report estimates that Apple Pay facilitated nearly \$200 billion in transactions in
15 the United States in 2022. The report goes on to explain that “analysts estimate that the value of
16 digital wallet tap-to-pay transactions will grow by over 150 percent by 2028.”

17 161. Multiple app developers have sought direct NFC access for their payment or wallet
18 apps. Yet, Apple prohibits these developers from incorporating tap-to-pay functionality in their
19 apps for fear that doing so would “be one way to disable [A]pple [P]ay trivially,” leading to the
20 “proliferation of other payment apps” that might operate cross-platform and ultimately undermine
21 Apple’s smartphone monopoly.

22 162. There is no technical limitation on providing NFC access to developers seeking to
23 offer third-party wallets. For example, Apple allows merchants to use the iPhone’s NFC antenna
24 to *accept* tap-to-pay payments from consumers. Apple also acknowledges it is technically feasible
25 to enable an iPhone user to set another app (*e.g.*, a bank’s app) as the default payment app, and
26 Apple intends to allow this functionality in Europe.

1 163. Apple further impedes the adoption of digital wallets by restricting others from
2 offering the same ability to authenticate digital payment options on online checkout pages. By
3 limiting the ability of third-party wallets to provide a simple, fast, and comprehensive solution to
4 online purchasing, Apple further undermines the viability of such wallets.

5 164. Apple also blocks other digital wallets from serving as an alternative to Apple's in-
6 app payment (IAP). This prevents these wallets from increasing their attractiveness and improving
7 the overall user experience on the iPhone by offering consumer experiences that may include use
8 of rewards points in purchasing, digital receipts, returns, loyalty programs, and digital coupons for
9 purchases of relevant subscriptions and digital goods. Apple even prohibits developers on its App
10 Store from notifying users in the developer's app that cheaper prices for services are available
11 using alternative digital wallets or direct payments.

12 165. Apple's conduct reflects its knowing degradation of the experience of its own users
13 by blocking them from accessing wallets that would have better or different features. In so doing,
14 Apple cements reliance on the iPhone and also imposes fees on a large and critical slice of all
15 digital wallet NFC transactions, which the U.S. Consumer Financial Protection Bureau estimates
16 will grow to \$451 billion by 2028.

17 **Apple's Moat Around Other Products**

18 166. The exclusionary and anticompetitive acts described above are part of Apple's
19 ongoing course of conduct to build and maintain its smartphone monopoly. They are hardly
20 exhaustive. Rather, they exemplify the innovation Apple has stifled and Apple's overall strategy
21 of using its power over app distribution and app creation to selectively block threatening
22 innovations.

23 167. Apple has deployed a similar playbook for a much broader range of third-party apps
24 and services as well, many of which present technologies that function as middleware, facilitate
25 switching, reduce the need for expensive hardware, or disintermediate Apple's iPhone by enabling
26 the development of cross-platform technologies. For instance, Apple has undermined third-party
27 location trackable devices that fully function across platforms. Apple has impaired third-party,
28

1 cross-platform video communications apps while steering users to its own video communication
2 app, FaceTime. Apple has limited the capabilities of third-party iOS web browsers, including by
3 requiring that they use Apple's browser engine, WebKit. Protocols that Apple has placed around
4 new "eSIM" technology may introduce additional frictions for any user who seeks to transition
5 from an iPhone to a different phone while maintaining the same phone number. Apple has
6 impeded cross-platform cloud storage apps in order to steer iPhone users into iCloud, making data
7 transfer between different devices more difficult. Apple uses restrictions in sales channels to
8 impede the sale and distribution of rival smartphones. And Apple has worsened its users'
9 experience by making it difficult for iPhone users to use superior voice and AI assistants and
10 steering users to use Siri as a voice assistant.

11 168. Ultimately, the strategies Apple has employed to date are not the only ones Apple
12 can use to achieve its anticompetitive and lucrative ends. As technology evolves, Apple continues
13 to evolve and shift its anticompetitive behavior to protect its monopoly power.
14 For example, in recent years, Apple has increasingly moved into offering its own subscription
15 services, including news, games, video, music, cloud storage, and fitness subscriptions that could
16 be used to keep users tethered to the platform. These subscription services and other ancillary fees
17 are a significant part of Apple's net revenue. These subscriptions services can also increase
18 switching costs among iPhone users. If an Apple user can only access their subscription service
19 on an iPhone, they may experience significant costs, time, lost content, and other frictions if they
20 attempt to switch to a non-Apple smartphone or subscription service.

21 169. These subscription services can also increase Apple's power over content creators
22 and newspapers, among others, by exerting control over how audiences access their work,
23 decreasing traffic to their websites and apps, and positioning Apple as the middleman or tollbooth
24 operator in the relationship between creators and users. In so doing, Apple takes on outside
25 importance and control in the creative economy, which may diminish incentives to fund, make,
26 and distribute artistic expression.

1 170. In addition, when one road is closed to Apple, Apple has demonstrated its ability
2 to find new roads to the same or worse ends. For example, Apple was recently ordered to stop
3 blocking link-outs by third parties to their websites where users could buy the third party's product
4 cheaper. In response, Apple reportedly allowed link-outs to websites but now charges for
5 purchases made on the web even if they are not an immediate result of a click from a link in a
6 native iPhone app.

7 171. Apple has also attempted to undermine cross-platform technologies like digital car
8 keys in ways that benefit Apple but harm consumers. For example, Apple has required developers
9 to add digital keys developed for their own apps to Apple Wallet as well. The default status of
10 Apple Wallet steers users to the Apple Wallet rather than allowing third parties to present digital
11 car keys only in their own cross-platform app, increasing dependence on Apple and the iPhone
12 whenever they use their car. At the same time, it decreases the incentives of automakers to innovate
13 because automakers are forced to share data with Apple and prevented from differentiating
14 themselves as they could absent Apple's conduct.

15 172. Apple's threatened dominance over the automotive industry goes well beyond the
16 Apple Wallet and Apple's demands on car makers to allow innovative products and services on
17 the iPhone. Apple's smartphone dominance extends to CarPlay, an Apple infotainment system
18 that enables a car's central display to serve as a display for the iPhone and enables the driver to
19 use the iPhone to control maps and entertainment in the car. Like the smartphone market,
20 infotainment systems are increasingly considered must-have capabilities in newer vehicles. After
21 leveraging its smartphone dominance to car infotainment systems, Apple has told automakers that
22 the next generation of Apple CarPlay will take over all of the screens, sensors, and gauges in a car,
23 forcing users to experience driving as an iPhone-centric experience if they want to use any of the
24 features provided by CarPlay. Here too, Apple leverages its iPhone user base to exert more power
25 over its trading partners, including American carmakers, in future innovation. By applying the
26 same playbook of restrictions to CarPlay, Apple further locks-in the power of the iPhone by
27

1 preventing the development of other disintermediating technologies that interoperate with the
2 phone but reside off device.

3 **Anticompetitive Effects**

4 173. **Apple's Conduct Harms the Competitive Process.** As described above, Apple
5 protects its monopoly power in smartphones and performance smartphones by using its control
6 over app distribution and app creation to suppress or delay apps, innovations, and technologies
7 that would reduce user switching costs or simply allow users to discover, purchase, and use their
8 own apps and content without having to rely on Apple. As a result, Apple faces less competition
9 from rival smartphones and less competitive pressure from innovative, cross-platform
10 technologies not because Apple makes its own products better but because it makes other products
11 worse. With the benefit of less competition, Apple extracts extraordinary profits and regulates
12 innovation to serve its interests. This leaves all smartphone users worse off, with fewer choices,
13 higher prices and fees, lower quality smartphones, apps, and accessories, and less innovation from
14 Apple and others.

15 174. Apple's conduct has resulted in less choice for smartphone users. Today, only two
16 companies (Google and Samsung) remain as meaningful competitors to Apple in the premium
17 smartphone market.

18 175. Even when users consider these alternatives, Apple's conduct has increased the
19 technical, behavioral, monetary, and other costs of switching from an iPhone to an alternative
20 smartphone. This undermines competition and entrenches Apple's monopoly power.
21 For example, according to user surveys, one of the biggest reasons iPhone users do not switch to
22 rival smartphones today is to avoid the problems Apple has created for cross-platform messaging.
23 Likewise, Apple exercised its control over app distribution and app creation to impede the
24 development and growth of super apps, depriving users of technology that would have facilitated
25 switching by decreasing user's dependence on Apple and the iPhone. Apple took a similar
26 approach to cloud streaming apps, delaying or suppressing technology that would have made it
27 easier for users to switch to cheaper smartphones. Apple also used its control over app creation,

1 including its control over critical APIs, to impose technical and contractual restrictions on
2 messaging apps, third-party smartwatches, and digital wallets, undermining cross-platform
3 technologies that would have helped users overcome switching costs and friction and ultimately
4 increased smartphone competition.

5 176. Apple's conduct has delayed or suppressed the emergence of cross-platform
6 technologies that would put competitive pressure on Apple's ability to extract extraordinary profits
7 from users and developers. For example, if developers could distribute their programs through
8 super apps or cloud streaming apps, rather than the App Store, it would put competitive pressure
9 on Apple's ability to control app distribution and app creation as well as the taxes Apple imposes
10 on developers who want to distribute apps to iPhone users. Similarly, third-party digital wallets,
11 or other apps with tap-to-pay functionality, would benefit users and developers by putting more
12 competitive pressure on Apple as well. For example, digital wallets could eventually provide
13 developers an alternative way to process payments and manage customer relationships, forcing
14 Apple to compete more aggressively by lowering fees and improving quality, which would
15 ultimately benefit users. Instead, Apple continues to exert its power over customers and financial
16 institutions when users pay for something with their phone—in the App Store, in an app, or
17 increasingly in the physical world with tap-to-pay.

18 177. Apple's conduct has harmed users in other ways. For example, third-party digital
19 wallets would reduce Apple's ability to charge banks high fees when users make payments using
20 Apple Wallet, which ultimately cost consumers through higher prices or other reductions in
21 quality. Alternative digital wallets could also provide smartphone users better rewards, *e.g.*, cash
22 back, as well as a more private, secure payment experience from a user's preferred financial
23 institution rather than being forced to go through Apple. But these tap-to-pay digital wallet
24 products and services do not exist today because of Apple.

25 178. Apple's conduct has made its own products worse, sacrificing the short-term profits
26 Apple could earn from improving the iPhone in order to preserve the long-term value of
27 maintaining its monopoly. In a competitive market, Apple would compete aggressively to support
28

1 the development of popular apps and accessories for iPhone users, which would in turn make
2 iPhones more attractive to users and more valuable. But Apple takes steps to delay or suppress
3 cross-platform technologies that it recognizes would be popular with users, such as super apps and
4 cloud streaming apps, because of the threat they pose to Apple's smartphone monopolies. As a
5 result, several developers have abandoned plans to develop super apps and cloud-based gaming
6 apps even after making substantial investments in bringing them to market. Apple's conduct may
7 have also slowed the development of innovative, high-compute apps related to education, artificial
8 intelligence, and productivity as well. Apple has also impeded innovation by third-party
9 smartwatches such that manufacturers have limited the functionality of their smartwatches for
10 iPhone users, suspended support for iPhone compatibility because of Apple's restrictions, or
11 canceled development of cross-platform smartwatches altogether. At least one company's
12 canceled smartwatch formed part of its overall wearables strategy, including future development
13 of virtual-reality technology. Similarly, Apple degrades third-party messaging apps, even though
14 it makes cross-platform messaging less private and less secure for iPhone users, because doing so
15 raises switching costs.

16 179. Because of the resources and risks required to maintain different features across
17 different smartphones, many potential super app, mini program, and other developers do not
18 implement features prohibited by Apple even on other smartphones. For example, prospective
19 digital wallet providers, including U.S. banks, have abandoned the development of digital-wallet
20 apps for either Apple or other smartphones. Another company decided not to offer users an
21 innovative digital car key in part because Apple required that company to add any features related
22 to the key into Apple Wallet rather than allowing that company to put its key solely in its own app.
23 Other developers have shrunk, shuttered, or abandoned plans to launch super apps, cloud-streamed
24 gaming apps, smartwatches, and other apps.

25 180. Apple's documents and conduct show that Apple is motivated by the
26 anticompetitive purpose of building or maintaining monopoly power in the relevant markets.
27 For example, Apple sacrificed substantial revenues it could have earned from super apps, mini
28

1 programs, cloud streaming apps, and other third-party apps and accessories. In particular, mobile
2 gaming already accounts for a large and growing portion of Apple's revenue. Popular cloud
3 streamed gaming apps would offer iPhone users access to popular services (including games) and
4 in turn generate significant revenue for Apple through subscriptions and in-app purchases. Instead,
5 Apple preferred the long-term benefit of reduced smartphone competition to the revenue it would
6 generate from cloud gaming, super apps, and mini programs or the quality (and consumer demand)
7 increase that would flow from this innovation. Apple has also used its control over app distribution
8 and app creation to selectively undermine cross-platform technologies, not because this helps
9 protect users but because it helps protect Apple.

10 181. The harms to smartphone competition caused by Apple's conduct are amplified by
11 Apple's decision to grant itself exclusive distribution rights to iPhone users through the Apple App
12 Store. If Apple allowed users to access apps in other ways, users could choose an app store that
13 did not restrict super apps or mini programs, even if Apple ran its App Store the same way it does
14 today. Apple does not allow that choice, however, because if it did developers could write their
15 programs for any smartphone rather than specifically for iOS, just as internet browsers and Apple's
16 QuickTime allowed developers to write programs that worked on a variety of operating systems
17 not just Windows. That would lower users' switching costs and reduce users' and developers'
18 dependence on Apple and the iPhone.

19 182. Apple's smartphone monopoly gives it many levers to maintain its power even in
20 the face of interventions focused on eliminating or disciplining specific anticompetitive practices.
21 This is because Apple's iPhone monopoly, secured by its anticompetitive conduct, grants it the
22 power to set the rules by which most smartphone users buy digital and hardware products, and by
23 which developers are allowed to sell these same products to users. If Apple is forced to change
24 some of these rules, it has the power to adopt new rules, restrictions, or features that reinforce
25 Apple's monopoly and harm competition in other ways. For example, Apple has stated plans to
26 adopt RCS due to market and international regulatory pressure. But Apple continues to
27 contractually restrict third parties from accessing other APIs and features that would enable cross-

1 platform messaging apps. In another instance, Apple was enjoined from enforcing certain anti-
2 steering provisions in its agreements with developers. In response, Apple simply created a
3 different set of onerous restrictions on app developers to achieve a similar result. In other cases,
4 Apple has used its control over app distribution to force companies to comply with Apple's policies
5 that may contradict local laws by delaying the review of the offending companies' apps.

6 *Apple's Incentives*

7 183. Apple has countless products and services—AirPods, iPads, Music, Apple TV,
8 photos, maps, iTunes, CarPlay, AirDrop, Apple Card, and Cash. These provide future avenues for
9 Apple to engage in anticompetitive conduct and the ability to circumvent remedies. Appropriate
10 forward-looking remedies are necessary to ensure that Apple cannot use these products and
11 services to further entrench its monopoly power.

12 184. Apple's conduct extends beyond just monopoly profits and even affects the flow of
13 speech. For example, Apple is rapidly expanding its role as a TV and movie producer and has
14 exercised that role to control content.

15 185. Apple has also attempted to use its monopoly to collect user data and stifle
16 innovation in the automotive industry by, among other things, impeding the development of digital
17 key technologies by requiring them to be offered in Apple's proprietary wallet product and creating
18 new single points of power over emerging uses of the iPhone. These acts further reinforce Apple's
19 power in the iPhone by locking in Apple's services and excluding other alternative technologies
20 that have the potential to disintermediate Apple's iPhone.

21 186. Finally, Apple's monopolization of smartphone markets gives it tremendous power
22 over the lives of millions of Americans. Apple uses that power to undermine rival smartphones,
23 suppress innovative technologies, and stymie consumer choice.

24 187. **Countervailing Factors Do Not Justify Apple's Conduct.** There are no valid,
25 procompetitive benefits of Apple's exclusionary conduct that would outweigh its anticompetitive
26 effects. Apple's moat building has not resulted in lower prices, higher output, improved
27 innovation, or a better user experience for smartphone users.

1 188. Apple markets itself on the basis of privacy and security to differentiate itself from
2 what competition is left in the smartphone market. But this does not justify Apple's monopolistic
3 and anticompetitive conduct. Apple imposes contractual restraints on app creation and
4 distribution, imposes hefty fees on many types of smartphone interactions, and conditionally
5 restricts API access on its smartphone platform simply because it can. There are limited if any
6 competitive constraints on this conduct. As a point of comparison, Apple does not engage in such
7 conduct on its Mac laptops and computers. It gives developers the freedom to distribute software
8 directly to consumers on Mac without going through an Apple-controlled app store and without
9 paying Apple app store fees. This still provides a safe and secure experience for Mac users,
10 demonstrating that Apple's control over app distribution and creation on the iPhone is substantially
11 more restrictive than necessary to protect user privacy and security.

12 189. In fact, many alternative technologies that Apple's conduct suppresses would
13 enhance user security and privacy. For example, Apple's conduct targeting digital wallets forces
14 users to share information with Apple even if they would prefer to share that information solely
15 with their bank, medical provider, or other trusted third party. In particular, when an iPhone user
16 provisions a credit or debit card into Apple Wallet, Apple intervenes in a process that could
17 otherwise occur directly between the user and card issuer introducing an additional point of failure
18 for privacy and security. Likewise, super apps or alternative app stores could offer users and their
19 families a more curated selection of apps that better protect user privacy and security. Indeed,
20 Apple allows enterprise and public sector customers to offer more curated app stores on employee
21 iPhones because it better protects privacy and security.

22 190. Apple is also willing to make the iPhone less secure and less private if that helps
23 maintain its monopoly power. For example, text messages sent from iPhones to Android phones
24 are unencrypted as a result of Apple's conduct. If Apple wanted to, Apple could allow iPhone
25 users to send encrypted messages to Android users while still using iMessage on their iPhone,
26 which would instantly improve the privacy and security of iPhone and other smartphone users.

1 191. Similarly, Apple is willing to sacrifice user privacy and security in other ways so
2 long as doing so benefits Apple. For example, Apple allows developers to distribute apps through
3 its App Store that collect vast amounts of personal and sensitive data about users — including
4 children—at the expense of its users’ privacy and security. Apple also enters agreements to share
5 in the revenue generated from advertising that relies on harvesting users’ personal data. For
6 example, Apple accepts massive payments from Google to set its search engine as the default in
7 the Safari web browser even though Apple recognizes that other search engines better protect user
8 privacy.

9 192. Finally, Apple selectively enforces its rules and contractual restrictions for app
10 distribution and app creation. For example, when it benefits Apple to do so, Apple permits
11 developers to introduce mini programs, stream content from the cloud, use virtual currency, and
12 receive special permissions or access APIs not automatically available to everyone.

13 193. Ultimately, Apple chooses to make the iPhone private and secure when doing so
14 benefits Apple. Apple chooses alternative courses when those courses help Apple protect its
15 monopoly power. Apple’s conduct underscores the pretextual nature of any claim that Apple’s
16 conduct is justified by protecting user privacy or security.

17 **Antitrust Injury**

18 194. Apple’s anticompetitive conduct harms both consumers and competitors alike in
19 the Relevant Market.

20 195. As a result of Apple’s anticompetitive conduct, Plaintiff has been harmed because:
21 (1) Plaintiff was forced to pay higher prices for iPhones and would have paid a lower price (or
22 would not have purchased an iPhone) had he known that Apple’s anticompetitive conduct would
23 not only drive up the price of that iPhone, but that it would throttle their user experience; (2)
24 Plaintiff suffers from loss of innovation and other efficiencies provided by other competitors in
25 the market for smartphones in the United States; (3) Plaintiff’s freedom of choice in the market for
26 smartphones is curtailed due to Apple’s conduct; and (4) Plaintiff has no choice but to provide
27

1 valuable transaction data to Apple if he wishes to use his Apple iOS devices for which Apple
2 provides no compensation.

3
4 **V. CLASS ALLEGATIONS**

5 196. Plaintiff brings this action on behalf of himself and all others similarly situated
6 pursuant to Federal Rules of Civil Procedure 23(a) and 23(b)(3) as representative of the Class
7 (hereinafter defined collectively as the “Class”), which is defined as follows:

8
9 **National Class.** All individuals, businesses and entities who purchased one or more
10 Apple iPhones indirectly from Apple in the period from March 21, 2020 until the
11 time that the anticompetitive conduct ceases.

12
13 197. In the alternative to the nationwide class, Plaintiff Schermer seeks to represent the
14 following state-wide sub-classes:

15
16 **New York Sub-Class.** All individuals, businesses and entities who purchased one
17 or more Apple iPhones indirectly from Apple in the State of New York in the period
18 from March 21, 2020 until the time that the anticompetitive conduct ceases.

19
20 **Additional Repealer-States Subclass.** All individuals, businesses and entities
21 who purchased one or more Apple iPhones indirectly from Apple in the states,
22 districts or jurisdictions of Alaska, Arkansas, Arizona, California, Colorado,
23 Connecticut, District of Columbia, Florida, Hawaii, Idaho, Illinois, Iowa, Kansas,
24 Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana,
25 Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota,
26 Oregon, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee,

1 Utah, Vermont, West Virginia and Wisconsin in the period from March 21, 2020
2 until the time that the anticompetitive conduct ceases.

3
4 198. Excluded from the Class are Defendants and Defendants' subsidiaries, affiliates,
5 officers and directors, and any entity in which Defendant has a controlling interest; and all judicial
6 officers assigned to hear any aspect of this litigation.

7 199. Plaintiff reserves the right to modify or amend the definition of the proposed
8 Classes before the Court determines whether certification is appropriate.

9
10 200. **Numerosity.** Members of the Class are so numerous that joinder would be
11 impracticable, as tens of millions of Class members exist.

12 201. **Commonality.** Questions of law and fact common to the Class include:
13 (a) Whether Apple's conduct is anticompetitive;
14 (b) Whether Apple violated the Sherman Act through its unlawful monopolization
15 of the Relevant Markets;
16 (c) Whether Apple violated state antitrust statutes through its unlawful
17 monopolization of the Relevant Markets;
18 (d) Whether Plaintiff and the Class are entitled to actual damages, treble damages,
19 declaratory and/or injunctive relief to enjoin the unlawful conduct alleged
20 herein; and
21 (e) Whether Plaintiff and the Class have sustained damages as a result of Apple's
22 conduct, and if so, what is the appropriate measure of damages or restitution.

23 202. **Typicality.** Plaintiff's claims are typical of those of other Class members because
24 Plaintiff, like every other Class member, was harmed by way of the anticompetitive conduct as
25 alleged herein. Plaintiff, like all other Class members, was injured by Defendant's uniform
26 conduct. Plaintiff is advancing the same claims and legal theories on behalf of themselves and all
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1 other Class members, such that there are no defenses unique to Plaintiff. The claims of Plaintiff
2 and those of the other Class members arise from the same operative facts and are based on the
3 same legal theories.

4 203. **Adequacy of Representation.** Plaintiff will fairly and adequately represent and
5 protect the interests of the Class members in that he has no disabling or disqualifying conflicts of
6 interest that would be antagonistic to those of the other members of the Class. The damages and
7 infringement of rights that Plaintiffs suffered are typical of other Class members, and Plaintiff
8 seeks no relief that is antagonistic or adverse to the members of the Class. Plaintiff has retained
9 counsel experienced in antitrust class action litigation, and Plaintiff intends to prosecute this action
10 vigorously.
11

12 204. **Superiority of Class Action.** A class action is superior to other available methods
13 for the fair and efficient adjudication of this controversy, as the pursuit of numerous individual
14 lawsuits would not be economically feasible for individual Class members, and certification as a
15 class action will preserve judicial resources by allowing the Class' common issues to be
16 adjudicated in a single forum, avoiding the need for duplicative hearings and discovery in
17 individual actions that are based on an identical set of facts. In addition, without a class action, it
18 is likely that many members of the Class will remain unaware of the claims they may possess.
19

20 205. The litigation of the claims brought herein is manageable. Defendants' uniform
21 conduct, the consistent provisions of the relevant laws and the ascertainable identities of Class
22 members demonstrate that there would be no significant manageability problems with prosecuting
23 this lawsuit as a class action.
24

25 206. Adequate notice can be given to Class members directly using information
26 maintained in the parties' records.

27 207. **Predominance.** The issues in this action are appropriate for certification because
28

1 such claims present only particular, common issues, the resolution of which would advance the
2 disposition of this matter and the parties' interests therein.

3 208. This proposed class action does not present any unique management difficulties.
4 Class action treatment is the superior method for the fair and efficient adjudication of the
5 controversy in that, among other things, such treatment will permit many similarly situated people
6 to prosecute their common claims in a single forum simultaneously, efficiently, and without the
7 unnecessary duplication of effort and expense that numerous individual actions would engender.
8 The benefits of proceeding through the class mechanism, including providing injured persons with
9 a method of obtaining redress for claims that might not be practicable for them to pursue
10 individually, substantially outweigh any difficulties that may arise in the management of this class
11 action.
12

13 **FIRST CAUSE OF ACTION**

14 **VIOLATION OF THE SHERMAN ANTITRUST ACT, SECTION 2**

15 **(15 U.S.C. § 2)**

16
17 209. Plaintiff realleges and repeats each and every allegation as if fully set forth herein.

18 210. Performance smartphones in the United States is a relevant antitrust market, and
19 Apple has monopoly power in that market.
20

21 211. Apple has willfully monopolized the performance smartphone market in the United
22 States through an exclusionary course of conduct and the anticompetitive acts described herein.
23 Each of Apple's actions individually and collectively increased, maintained, or protected its
24 performance smartphone monopoly.

25 212. Apple's anticompetitive acts include, but are not limited to, its contractual
26 restrictions against app creation, distribution, and access to APIs that have impeded apps and
27

1 technologies including, but not limited to, super apps, cloud streaming, messaging, wearables, and
2 digital wallets. The areas identified in this complaint reflect a non-exhaustive list of recent
3 anticompetitive acts but as technology advances, both the technologies impeded and the specific
4 manner of impediment may shift in response to technological and regulatory change consistent
5 with Apple's past conduct.

6 213. While each of Apple's acts is anticompetitive in its own right, Apple's interrelated
7 and interdependent actions have had a cumulative and self-reinforcing effect that has harmed
8 competition and the competitive process. Apple's anticompetitive acts have had harmful effects
9 on competition and consumers.

10 214. Apple's exclusionary conduct lacks a procompetitive justification that offsets the
11 harm caused by Apple's anticompetitive and unlawful conduct.

12 215. Pursuant to the Sherman Act, Plaintiff seeks declaratory relief, injunctive relief,
13 reasonable costs and attorney's fees, as well as pre- and post-judgment interest.
14

15
16 **SECOND CAUSE OF ACTION**

17 **VIOLATION OF THE SHERMAN ANTITRUST ACT, SECTION 2**

18 **(15 U.S.C. § 2)**

19 216. Plaintiff realleges and repeats each and every allegation as if fully set forth herein.
20

21 217. Smartphones in the United States is a relevant antitrust market, and Apple has
22 monopoly power in that market.

23 218. Apple has willfully monopolized the smartphone market in the United States
24 through an exclusionary course of conduct and the anticompetitive acts described herein. Each of
25 Apple's actions individually and collectively increased, maintained, or protected its smartphone
26 monopoly.
27

1 219. Apple's anticompetitive acts include, but are not limited to, its contractual
2 restrictions against app creation, distribution, and access to APIs that have impeded apps and
3 technologies including, but not limited to, super apps, cloud streaming, messaging, wearables, and
4 digital wallets. The areas identified in this complaint reflect a non-exhaustive list of recent
5 anticompetitive acts but as technology advances, both the technologies impeded and the specific
6 manner of impediment may shift in response to technological and regulatory change consistent
7 with Apple's past conduct.

8
9 220. While each of Apple's acts is anticompetitive in its own right, Apple's interrelated
10 and interdependent actions have had a cumulative and self-reinforcing effect that has harmed
11 competition and the competitive process.

12 221. Apple's anticompetitive acts have had harmful effects on competition and
13 consumers.

14 222. Apple's exclusionary conduct lacks a procompetitive justification that offsets the
15 harm caused by Apple's anticompetitive and unlawful conduct.

16
17 223. Pursuant to the Sherman Act, Plaintiff seeks declaratory relief, injunctive relief,
18 reasonable costs and attorney's fees, as well as pre- and post-judgment interest.

19 **THIRD CAUSE OF ACTION**

20 **VIOLATION OF THE STATE ANTITRUST LAWS**

21 **(On behalf of the New York Sub-Class and the Additional Repealer State Sub-Class)**

22 224. Plaintiff Schermer realleges and repeats each and every allegation as if fully set
23 forth herein.

24
25 225. **New York.** The monopolization of the Relevant Markets by the Defendant set forth
26 in this Complaint violated New York's Donnelly Act (General Business Law § 340) for the same
27 reasons that they violate federal antitrust laws.

1 226. Section 340 of Article 22 of the New York General Business Law prohibits
2 monopolies and contracts or agreements in restraint of trade, with the policy of encouraging
3 competition or the free exercise of any activity in the conduct of any business, trade or commerce
4 within the state of New York.

5 227. Plaintiff Schermer and members of the New York Sub-Class purchased iPhones
6 indirectly within the state of New York during the relevant statutory period. But for Defendants'
7 conduct as set forth herein, the price of iPhones would have been lower, in an amount to be
8 determined at trial.

9 228. Under New York law, indirect purchasers have standing to maintain an action based
10 on the facts alleged in this Complaint.

11 229. Defendants restrained competition of the conduct of business in the Relevant
12 Markets within the state of New York, in violation of New York General Business Law § 340.
13 Defendant's unlawful conduct substantially affected New York's trade and commerce and
14 Defendant's unlawful conduct occurred in part by monopolizing the Relevant Markets in New
15 York.
16

17 230. Pursuant to the Donnelly Act, Plaintiff seeks actual damages, treble damages,
18 declaratory relief, injunctive relief, reasonable costs (in an amount not exceeding \$10,000) and
19 attorney's fees, as well as pre- and post-judgment interest.
20

21 **VI. PRAYER FOR RELIEF**

22 231. To remedy these illegal acts, Plaintiff requests that the Court:

- 23 a. Adjudge and decree that Apple has acted unlawfully to monopolize, or, in the
24 alternative, attempt to monopolize, the smartphone market in the United States in
25 violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;
26

- 1 b. Adjudge and decree that Apple has acted unlawfully to monopolize, or, in the
2 alternative, attempt to monopolize, the performance smartphone market in the
3 United States in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;
4 c. Adjudge and decree that Apple has acted unlawfully to monopolize the Relevant
5 Markets in violation of the State Antitrust Laws;
6 d. Enter relief as needed to cure any anticompetitive harm, including the measure of
7 actual and treble damages;
8 e. Enjoin Apple from continuing to engage in the anticompetitive practices described
9 herein and from engaging in any other practices with same purpose or effect as the
10 challenged practices, including but not limited to: preventing Apple from using its
11 control of app distribution to undermine cross-platform technologies such as super
12 apps and cloud streaming apps, among others; preventing Apple from using private
13 APIs to undermine cross-platform technologies like messaging, smartwatches, and
14 digital wallets, among others; and preventing Apple from using the terms and
15 conditions of its contracts with developers, accessory makers, consumers, or others
16 to obtain, maintain, extend, or entrench a monopoly.
17 f. Enter any other preliminary or permanent relief necessary and appropriate to restore
18 competitive conditions in the markets affected by Apple’s unlawful conduct;
19 g. Enter any additional relief the Court finds just and proper; and
20 h. Award Plaintiff, as applicable, an amount equal to Plaintiff’s costs, including
21 reasonable attorneys’ fees, incurred in bringing this action.
22
23
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25

26 *[Remainder of page intentionally left blank]*
27
28

VII. DEMAND FOR JURY TRIAL

232. Plaintiff demands a trial by jury so triable on all claims so triable under Federal Rule of Civil Procedure 38(b).

DATED: March 23, 2024

Respectfully Submitted,

*/s/ *Israel David*

Israel David*
Blake Hunter Yagman*
ISRAEL DAVID LLC
17 State Street, Suite 4010
New York, New York 10004
Tel.: 212-739-0622
Email: *israel.david@davidllc.com*
blake.yagman@davidllc.com

**Pro Hac Vice Forthcoming*

/s/ Mario A. Moya

Mario A. Moya
Rebecca M. Hoberg
MOYA LAW FIRM
1300 Clay St., Suite 600
Oakland, CA 94612
Email: *mmoya@moyalawfirm.com*
rhoberg@moyalawfirm.com

*Attorneys for Plaintiff Schermer and
the Proposed Class*